The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 912—Vol. XXIII.] LONDON, SATURDAY, FEBRUARY 12, 1853. [Price 6d.

MONTGOMERYSHIRE.

MR. E. EDWARDS WILL SELL, BY AUCTION, at the Herbert Arms Inn, in Machynlleth, on Wednesday, 16th February, 1853, between the hours of Four and Six in the afternoon (and subject to conditions to be then produced), all that most desirable and eligible FREEHOLD FARM, LANDS, and PREMISES, called "GARTHGWYNION ISSA," together with the right of COMMON thereunto belonging, capable of depasturing from 80 to 100 sheep. Also, TWO convenient COTTAGES situate on the said farm, called TY'NYFFEDW and TYNEWYDD, with the GARDENS, ORCHARDS, and APPURTENANCES thereunto respectively belonging, with thriving and extensive WOODLANDS, now in the occupation of Mr. Edward Morgan and others, containing by admeasurement, exclusive of the sheep-walk, 118 A. 1 R. 11 P., or thereabouts, of capital ARABLE, MEADOW, PASTURE, and WOODLAND. There has been found upon the farm a strong vein of copper ore, which has not yet been developed, but is a continuation of the Cefnmaesmor copper vein.

The above freehold property is very conveniently and pleasantly situated in the Vale of Glasbwll, in the parish of Machynlleth, is two miles distant from the market town of Machynlleth. The land is of excellent quality, very fertile, and capable of great improvement, is within two miles of Derwenlas, where lime may be procured at a very moderate price. The timber is all oak, and cannot be surpassed in growth or quality, and may be shipped either at Derwenlas or Garreg, two shipping places on the River Dovey, within a distance of two miles.

For further particulars, apply to Mr. D. Howell, solicitor, Machynlleth; and Mr. T. Evans, of Pensarn, near Garthgwynion, will show the premises. 1

TO CONTRACTORS, MINERS, ENGINEERS, SMITHS, BROKERS, &c. EXTENSIVE AND VALUABLE PLANT, STEAM-ENGINES, BOILERS, AND OTHER EFFECTS, AT THE DOCKS, BIRKENHEAD, NEAR LIVERPOOL.

MR. W. KIRK is honoured with instructions from George Meakin, Esq., the eminent contractor, to SELL, BY PUBLIC AUCTION, on Monday and Tuesday, the 21st and 22d February, 1853, on the premises of the Dockyard, Birkenhead, near Liverpool, all the valuable MACHINERY, PLANT, and UTENSILS recently used in the formation and construction of the above Docks, and adapted for railway or dock purposes, consisting of 1 30-horse high-pressure portable steam-engine, cylinder 19 in., stroke 3 ft.; 1 20-horse high-pressure portable steam-engine, cylinder 16 in., stroke 3 ft. 8 in.; 1 10-horse high-pressure portable steam-engine, cylinder 12 in., stroke 3 ft.; 1 cylindrical boiler, with spherical ends, 33 ft. long, 5 ft. diameter; 1 cylindrical boiler, 25 ft. long, 5 ft. diameter; 1 cylindrical boiler, 18 ft. long, 4 ft. 6 in. diameter; 1 cylindrical boiler, 34 ft. long, 4 ft. 8 in. diameter, with spherical ends; patent pile-driving engine, by Nasmyth; 4 travelling cranes; 10 double-purchase travelling crabs; 2 flats, with masts, ropes, riggings, and hatches; 2 ferry boats; 4 mud barges; quantity of flat-bottomed temporary rails, 42 to 45 lbs. per yard; 4000 cubic feet of winter-fallen oak; 5000 cubic feet of green heart timber; warehouse and other centres; large iron and wood blocks; new bar and rod iron; 16 smiths' bellows; 15 anvils; timber principles; 16 carts; 2-wheeled stone truck, with double-purchase crab; 4 hand trucks; timber boister; mortar mill; quantity of trace and cart harness; plate layer's levers; railway chairs; pump-rods; pump; iron cisterns; verticals and shaft; garden spades; ropes; chains; and 2 new capstans, complete; together with a large quantity of other property; catalogues of which may be had of George Meakin, Esq., at the Dockyard, Birkenhead, near Liverpool; or at the offices of the auctioneer, 24, Princess-street, Manchester, six days before the sale; or will be sent per post on receipt of four stamps. 2

GLAMORGANSHIRE.—IMPORTANT SALE OF STEAM HAMMERS, BOILERS, MACHINERY, AND TOOLS, AT THE PATENT FUEL WORKS, DINAS, NEAR CARDIFF.

MR. T. WATKINS is instructed to SELL, BY AUCTION, on the Premises, on Thursday, the 24th February, 1853, and the following day, the whole of the very valuable MACHINERY, and MATERIALS at the above WORKS, comprising:—3 of Condie's patent steam hammers of 40 cwts. and 4½ feet stroke; 3 boilers, 4 feet diameter, 44 feet long, ½ in. plates, with steam and feed pipes, and all necessary fittings; 3 powerful horizontal crushing mills with gearing, shafting, and couplings; 1 large travelling crane, to lift 40 tons, fitted up very complete; 1 smaller ditto, to lift 10 tons, do. do.; 1 self acting slide lathe, 15 in. centres, bed 16 feet long, full length guide screw, change wheels, &c.; 1 ditto ditto 12 in. centres, and 10 ft. bed; 1 planing machine, to take an object 6½ feet long, 3 feet wide, and 3 feet high; 1 shaping machine, for flat work, 7 in. by 14, also adapted for circular work and nuts; 1 vertical drilling machine, complete, with shafting, pullies, belts, &c.; 3 turn tables, 3 ft. 3 in. in diameter; and a quantity of bellows, anvils, smiths and fitters' tools, screwing tackle, files, steel, brass, cast and wrought iron pipes, forged and bar iron castings, brass nuts, screws, valves cocks, &c. divided into convenient lots. 3

The machinery, tools, &c. (manufactured by Mr. Joshua Buckton), are in excellent order, having only been in use a few months, and are sold in consequence of the works being discontinued.

Catalogues, price 1s. each, to include conveyance from Newbridge to Dinas and back, may be had ten days before the sale, at the place of sale; at the Cardiff, Newbridge, Merthyr, and Aberdare stations of the Taff Vale Railway; at the principal stations of the South Wales Railway; and at the Auctioneer's Offices, Cardiff.

A special train will start from the Taff Vale Railway Station, at Newbridge, on the arrival of the up and down morning trains from Cardiff and Merthyr; and return to Newbridge in time for the up and down evening trains.

The sale to commence each day at Twelve o'clock precisely.

IRONWORKS IN AYRSHIRE FOR SALE.—UPSET PRICE, £70,000.—TO BE SOLD, BY PUBLIC ROUP, within the Royal Exchange Sale Rooms, Glasgow, on Wednesday, the 2d March next, at Two o'clock in the afternoon (unless previously disposed of, in whole or in part, by private bargain), the IRONWORKS at MUIRKIRK and LUGAR, in the county of AYR, connected with each other by public railway. 4

The IRONWORKS at MUIRKIRK comprehend the valuable MINERAL FIELDS adjoining, held on lease by the proprietors. The COAL FIELD especially, is not only one of the best in point of quality, but one of the cheapest wrought in Scotland. There are THREE BLAST FURNACES, and MALLEABLE IRON MACHINERY, moved by water power, all now in full operation, and producing 80 tons of merchant bars, or rails, weekly; a commodious MANSION HOUSE; and a large extent of WORKMEN'S HOUSES; with all subsidiary accommodation for carrying on the business of ironmaking. This field and work are well known to produce the best quality of pig and bar-iron, and at a lower rate than any other work in Scotland.

The IRONWORKS at LUGAR consist of FOUR BLAST FURNACES, and are also connected with very extensive and valuable MINERAL FIELDS, held on lease from Sir James Boswell. The Blackband ironstone is known to be of the very best quality, and is not expensive to work. There are suitable breaks in all the leases. The MANAGER'S HOUSE and WORKMEN'S HOUSES are all new and commodious.

Both works are situated on the Glasgow and South-Western Railway, whereby they have a direct communication with the ports of Ayrshire, with England and with Glasgow. The freights from the Ayrshire ports to Liverpool, Belfast, &c., are in general moderate.—For particulars, apply to Messrs. Aitken and Moffat, accountants, Glasgow; Messrs. Walker and Melville, W. S., Edinburgh; or Messrs. Bannatynes and Kirkwood, writers, Glasgow.—Glasgow, Feb. 1853.

VALUABLE MINES OF COAL AND IRONSTONE TO BE LET.—TO BE LET, BY PRIVATE TREATY, the valuable MINES and SEAMS OF COAL, called the LOWER SOFT COAL and LOWER HARD COAL; also, the BEDS or SEAMS of excellent IRONSTONE, lying and being within and under the BRINSLEY ESTATE, the property of His Grace the Duke of Newcastle, in the parish or hamlet of Brinsley, otherwise Brunsley, in the county of Nottingham, containing 470 acres, or thereabouts. The same seams of coal and ironstone are now extensively worked in the adjoining estates by the Butterley Company. The Cromford and Nottingham Canal intersects the Brinsley Estate, and the Erewash Valley Railway passes within a few yards of it, thereby affording convenient and ready access to the southern and midland counties' markets, and especially to those of South Staffordshire, where the coals from these mines are in great demand for the make and manufacture of iron, and find a ready sale at highly remunerative prices. A fault runs through the estate, conveniently dividing the seams into two lots, one containing about 400 acres, and the other about 70 acres, and it is proposed to let the seams lying on each side the fault separately.—Further particulars and information may be had, and a plan of the estate seen, on application to Mr. John Lancaster, of Ince, near Wigan, mining engineer; or at the office of Messrs. Woodcock, Part, and Scott, solicitors, Wigan. 5

TO BE LET, FOR A TERM OF YEARS, from the 6th of April, 1853, as may be hereafter agreed upon, the MILL FOR SMELTING LEAD ORE, known by the name of the "GAUNLESS LEAD MILL," with FIRE-BRICK KILNS, and other appurtenances, situated near the rivulet called the Gaunless, in the township of Langleydale and parish of Staindrop, county of Durham.

The MILL contains three smelting furnaces; two refining ditto; two slag hearths, with blast; one reducing furnace; two bone and two assay furnaces; a smiths' shop; sleeping rooms for smelters; cottage for superintendent; stable, &c.; seven large and seven small separating pots, with furnace moulds, and moulds for market lead; with other articles for carrying on an extensive business. 6

TWO BRICK KILNS, with brick sheds and drying floor. The clay is of first-rate quality for making fire and common bricks.

The above premises are under two miles distant from the Haggerleazes Railway Bonis Sackfield Fell, and a quarter of a mile from Copley Colliery, eight miles from Bishop Auckland, six miles from Barnard Castle, and seven miles from Darlington, and about six miles from Stockton-in-Teesdale, over good roads, two miles of which are private property, and are leased to the mill.—Sealed proposals to be forwarded to T. F. Scarth, Esq., Raby Castle, near Staindrop, until Saturday, the 26th of February, when the letting will take place at Twelve o'clock at noon of that day.—Raby Castle, Jan. 25, 1853.

TO BE LET, FOR A TERM OF YEARS, the WORKING OF COPPER WITHIN THE MANOR OF GREAT ASBY, in the county of WESTMORELAND, situate about four miles from the Tebay Station of the Lancaster and Carlisle Railway, which is of considerable extent, and maiden ground. Specimens of the copper ore may be seen at the office of the *Mining Journal*, 26, Fleet-street, London; as also at Appleby, in Westmoreland, on application to Mr. William Trwaites, Appleby, who will point out the boundaries of the said manor to those who wish to inspect the same. 7

MR. JAMES CROFTS, of No. 1, FINCH LANE, CORNHILL, MINING BROKER.

Mr. J. CROFTS begs to OFFER his SERVICES for the PURCHASE or SALE of MINING SHARES of every description, and not being a DEALER, transacts business only for principals on commission. 8

Mr. CROFTS having resolved to extend his business, more generally in reference to DIVIDEND MINES, has on hand, or can procure, the best of those appearing in the London market, and in the columns of the *Mining Journal*, which, judiciously selected, will pay the highest rate of interest of any known security.

In PROGRESSIVE MINES, Mr CROFTS when called upon to recommend will do so, but prefers to be asked an opinion rather than give one. The mines of this class most in demand this week have been as under:—North Wheal Trelawny, Rix Hill, Hennock, East Tamar, Wheal Edward, Clive, Tavy Consols, East Russell, West Wh. Alfred, Devon Kapunda, Wheal Carpenter, Wheal Russell, Gonamena, Balnoon Consols, Wheal Norris.

Mr. CROFTS transacts every description of business through the medium of the Stock Exchange, but more particularly in COLONIAL GOLD, PORT PHILIP, and NOUVEAU MONDE; and NORTH BRITISH, and SCOTTISH AUSTRALIAN LAND SHARES.

Hours of business:—Half-past Nine till Five, daily. Bankers—The London Joint-Stock Bank, Princes-street, City.

Dated Friday, Feb. 11, 1853, No. 1, Finch-lane, Cornhill.

MR. JAMES LANE, MINING AGENT, 33, THREADNEEDLE STREET, LONDON (Established 10 Years), 9

Begs to inform his friends and the public, that the SHARES which he is prepared to DEAL IN are not confined to the limits of an advertisement, but would refer to the general list of the *Mining Journal*, and is in a position to TRANSACT BUSINESS in any mines quoted in that list. Mr. LANE will furnish a list with latest prices on application.

MR. JOSEPH JAMES REYNOLDS, STOCK & SHAREBROKER, 21, THREADNEEDLE-STREET, AND 28, NEW BOND-STREET, PICCADILLY.

Mr. REYNOLDS has BUSINESS TO TRANSACT in the following MINES:—

Agua Fria	Great Bryn Consols	Treviskey and Barrier.
Alfred Consols	Herodsfoot	Trelusbeck
Allt-y-Crib	Kilbricken	Trumpet Consols
Anglo-Californian	Leeds and St. Aubyn	Tyn-y-Worglod (slate)
Balnoon Beacon	Leeds Town Consols	Tywardreath
Bedford United	Lelant Consols	Tywarnhayle
Bell and Lanarth	Levant Liberty	Union Tin 10
Bicton Consols.	Linares	Unity Consols
Black Craig	Marke Valley	United Mines (Tavisk.)
Bodmin Consols	Mary Ann	United Mines (Gwen.)
Boringdon Consols	Mendip Hills	Venton
Boscaswell Downs	Merllyn Michell	Wellington
Bosecan Brewer	Molland	West Abraham
Britannia Gold & Copper	Monarch Gold	West Alfred Consols
Bronfloyd	Mostyn	West Caradon
Burra Burra (Australia)	Nansegolian	West Damsel
Callington	Nant-y-Car	West Darlington
Caradon Wood	Neptune	West Ding Dong
Carsons Creek	North Levant	West Stray Park
Cathedral	North Frances	West Phœnix (free sh.)
Carvannal	North Basset	West Providence
Castle Dinas	North Cornwall	West Russell
Carn Brea	North Pool	West Seton
Cwm Erfin	North Roskear	West Treasury
Cawson Hill	North Stafford. Coal	West Trethellan
Chyprase Consols	North Wheal Trelawny	Wheal Brewer
Clive Comford	Nouveau Monde	Wheal Buller
Colonial	Okel Tor	Wheal Carne
Condurrow	Orsedd	Wheal Catherine
Cook's Kitchen	Par Consols	Wheal Comford
Carvannal	Pembroke & E. Crinnis	Wheal Clifford
Craddock Moor	Pendarves and St. Aubyn	Wheal Golden
Cubert Darren	Penhale Consols	Wheal Ellen (Breage)
Devon Burra Burra	Penzance Consols	Wheal Enys (Wendron)
Devon and Courtenay	Perran St. George	Wheal Faany
Devon Consols North	Phœnix Great Consols	Wheal Fatwork
Devon Great Consols	Poltimore	Wheal Fortune (Breage)
Devon Kapunda	Port Philip & Col. Gold	Wheal Kitty
Dolcoath	Praed Consols	Wheal Langford
Duke of Cornwall	Prignant Consols	Wheal Lovel
East Alfred Consols	Rix Hill	Wheal Russell
East Black Craig	Round Hill (Salop)	Wheal Reeth
East Halamanning	Silver Valley	Wheal Samson
East Margaret	Sourton Consols	Wheal Squire
East Pool	South Frances	Wheal Surprise
East Russell	South Caradon	Wheal Trebarvah
East Seton and Maude	South Condurrow	Wheal Trefusis
East Tamar	Sidney Godolphin	Wheal Trelawny
East Wheal Rose	St. Aubyn and Grylls	Wheal Tremayne
East Wheal Russell	St. Day United	Wheal Tryphena
Esgair Llee	St. Ive's Consols	Wheal Seton
Exmoor Eliza	South of Scotland	Wheal Sydney
Four Dargue (Camberl.)	South Wh. Basset	Wheal Uny
Garreg Gonamena	South Wheal Lovel	West Wheal Alfred
Golden Mile Lead Mines	South Carn Brea	West Wheal Frances
Grambler and St. Aubyn	South Tolgus	West Wheal Robins
Great Beam	Spearne Consols	West Wheal Russell
Great Crinnis	Stray Park	West Wheal Treasury
Great Nugget Vein Co.	Swanpool	Wheal Tehidy
Great Sheba Consols	Tavy Consols	West Basset [Tawton.
Great Crinnis	Tamar Consols	Wheal Fortune (South
Great Work	Tees Side Tincroft	Wheal Gill
Great Wheal Alfred	Trebarvah	Wheal Langford
Great Wheal Baddern	Trebell Consols	Wheal Lemon
Great Wheal Fortune	Trefusis Trehane	Whitford
Great Wheal Vor	Trelawny Trevena	Wood Mine

And SHARES FOR SALE in the West Cornwall Railway.

J. J. REYNOLDS will furnish a LIST, with the LATEST PRICES, of DIVIDEND-PAYING MINES, together with others of a speculative character, which promise ultimately to remunerate the capitalist, the former and latter under the most respectable management—a most important point to be considered by persons disposed to invest, not only as regards the management, but especially in speculative mines, the respectability of the parties with whom they embark as co-adventurers.

Mines inspected by agents of experience and high respectability in any part of the kingdom within the shortest notice.—Feb. 11, 1853.

MINING PROPERTY.—Mr. JOSEPH MUMFORD, of No. 2, ADAM'S COURT, OLD BROAD STREET, has BUSINESS to TRANSACT in the following DIVIDEND and PROGRESSIVE MINES:—Alfred Consols, Brewer, Black Craig, Clive, Cwm Darren, East Gunnis Lake, Herodsfoot, Mary Ann, Merllyn, Neptune, Trehane, Whitford, Wheal Sedley. 11

MESSRS. MOLYNEUX AND CO., 10, BUCKINGHAM STREET, ADELPHI, and No. 114, BISHOPSGATE STREET, LONDON, MINING AGENTS for the SALE and PURCHASE of all description of MINING SHARES; and offices for the management of mining companies.—Offices of the Wheal Fortune (South Tawton), Great Wheal Tonkin (Callington), Wheal Henry (Paul, Cornwall), Fursdon Manor Mine (South Tawton, Devon), &c.

Agents,—Messrs. Henwood and Molyneux, Telegraph-yard, Park-row, Leeds. 12

MINING RECORD OFFICES, TELEGRAPH YARD, PARK ROW, LEEDS.—Messrs. HENWOOD AND MOLYNEUX, MINE BROKERS and AGENTS, OFFER THEIR SERVICES and ADVICE in the PURCHASE or SALE of every description of MINING PROPERTY. Mr. Henwood has just returned from an official visit to Cornwall and Devon, and has made such arrangements as will enable Messrs. Henwood and Molyneux to furnish the most correct information on every mine of note in those counties, as well as all Foreign and Colonial, Irish and Welsh mines. Mines inspected, surveyed, mapped, and reported on, if required, by the above firm. Messrs. Henwood and Molyneux are Agents for the Wheal Fortune, Wheal Tonkin, Wheal Prockter, the Fursdon Manor, and Wheal Henry Mines. London Agency, 10, Buckingham-street, Adelphi, Strand. 13

SITHNEY WHEAL BULLER TIN MINE, TEMPORARY OFFICE,—6A, BELVIDERE ROAD, LAMBETH.

JAS. FAIRWEATHER, Purser. 14

TREVALGA SLATE COMPANY.—The BANKERS' RECEIPTS will be EXCHANGED for CERTIFICATES on and after WEDNESDAY, the 9th of February instant, between the hours of Two and Five o'clock.

Offices, No. 1, Guildhall Chambers, Basinghall-street. 15

WHEAL FORTUNE (SOUTH TAWTON).—NOTICE.—That all shareholders holding OLD CERTIFICATES in this Company are particularly requested to SEND the same to these offices to be EXCHANGED for NEW CERTIFICATES.

By order of the Committee,

Mining Offices, 10, Buckingham-street, Adelphi. R. T. MOLYNEUX, Sec.

BRITISH MUTUAL GOLD MINING COMPANY.—PARTIES HOLDING CERTIFICATES FOR SHARES herein will HEAR of a PURCHASER by applying to the undersigned, stating lowest price per share. SHARES FOR SALE in Great Work (£175); Wheal Treliusbeck (£7); West Polgooth, &c. (£1); Great Cowarch (£2 10s.); Cefn Gwyn (15s.); and also in that highly promising copper mine (see to-days' ticketing sale), Wheal Trebarvah (£9 10s.); and Sidney Godolphin (£5 15s.).—Apply to "A. B.," Post-office, Helston, Cornwall. 17

MR. T. P. THOMAS, MINE AGENT, 75, OLD BROAD-STREET, ESTABLISHED NINE YEARS.

Mr. T. P. THOMAS begs to inform capitalists and the public that he is at all times in a position to BUY or SELL, at close market prices, in DIVIDEND and respectably established BRITISH and FOREIGN MINES; and having a local knowledge of the principal Cornish and Welsh Mines, from periodical personal inspection, &c., will be happy to furnish information by post or otherwise.

N.B.—Mines inspected and reports furnished. 18

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND-PAYING MINES FOR SALE, and which will give the purchaser 15 to 20 per cent. for the outlay. Amongst others are the following:— 19

Alfred Consols	Treviskey	Bedford United
West Providence	Levant Botallack	Cobre
Tremayne	South Tamar	St. John del Rey
United Mines	Tamar Consols	Alten
Great Devon Consols	Trelawny	West Caradon
South Basset	Trehane	South Caradon
South Frances	Mary Ann	East Darren

And has also FOR SALE SHARES in MINES having a PROMISING APPEARANCE, and affording greater range for speculation, such as—

Wheal Pollard	Hingston Downs	Lelant Consols
North Damsel	Herodsfoot	Cefn Bruno
Wheal Norris	East Tamar	Vale of Towy
Cupid	Wheal Grenville	Clive
St. Day United	North Basset	Speedwell
East Russell	Trefusis	Chiverton

Mining Offices, 33, Clement's-lane, Lombard-street.

MINES.—The increased demand for metals, and the improvement in machinery and science, tend to the more profitable working of mines now than at any previous period. Devon Great Consols, on which only £1 per share has been paid, are now readily marketable at £420 to £430 per share; Wheal Buller shares, £5 paid, are marketable at £1100 to £1150 per share; Wheal Basset shares, £10½ paid, are marketable at £560 to £580 per share; and many other British copper, lead, and tin mines are paying several hundreds per cent. profit on the original cost. Established dividend-paying mines of the best character may be bought to pay the purchaser from £15 to £20 per cent. per annum. Mines progressing, situate in good districts, under honest and able management, afford a wider field for profit than any other speculation. It is also true that the market values of English mines are rarely, if ever, influenced by political and extraneous causes, which produce such fearful fluctuations in railway and Stock Exchange securities generally. The dividends are usually declared and paid promptly every two or three months; and the influx of capital which mining investments is attracting renders this security, when judiciously selected, readily convertable. These remarks do not apply to the host of spurious schemes daily thrust upon the market, but only to the *bonâ fide* adventures which are under the management of miners and capitalists of tried experience and known respectability. Every information afforded, and sales or purchases effected upon the best terms.—JAMES STEVENS TRIPP and Co., mining offices, Lombard-street Chambers, 33, Clements-lane, Lombard-street. 20

MINING SHARES WANTED.—Mr. H. B. RYE is a BUYER of Wheal Buller (at £1200), Wheal Basset, Devon Great Consols, Trevelyan, Botallack, South Caradon, Great Consols, Trehane, Condurrow, and Tresavean. And will BUY or SELL in the following:—Levant, Wheal Kitty, Bryntail, Neptune, Speedwell, Chiverton, United Mines, Dolcoath, Comford, Mary Ann, East Darren, Lewis, Tamar Consols, and South Tamar.—77, Old Broad-street. 21

MINING SHARES.—WANTED TO PURCHASE—Weston, Bronfloyd, Alfred Consols, Wheal Edward, Gawton United, Blaen Cayien, Wheal Langford, Wheal Catherine.—Apply to Mr. J. B. Balcombe, stockbroker, 19, Royal Exchange, London. 22

MINING SHARES.—Mr. GEORGE SPRATLEY is instructed to SELL the following SHARES:—Leeds Town (£1 10s.); Wheal Norris (£1 10s.); West Wheal Basset (£9 10s.); Wheal Harriett (£1 8s.); Bosorn (£2 15s.); Calstock United (£2 7s. 6d.); West Wheal Carpenter (£1 2s. 6d.); Perran Wh. Jane (5s.); Baden Baden (£1 2s. 6d.); Bronfloyd (£1 5s.); Ritton Castle (7s. 6d.). Mr. SPRATLEY has BUSINESS to TRANSACT in the following:—Devon Great Consols, Spearne Consols, Hennock, Tavy, Langford, Boscean, Weston, Merllyn, Wheal Augusta, West Wheal Edward, East Russell, Monarch Gold, Wheal Edward, Chyprase, Wheal Ludcott.—2, Winchester-buildings, City. 23

MR. ADAM MURRAY, F.G.S., MINING ENGINEER, will undertake the INSPECTION of every description of MINERAL PROPERTY, and REPORT THEREON. Communications addressed to Mr. Murray, 76, Cornhill, or 35, Craven-street, Strand, will meet attention. 24

MR. JAMES HOLLOW, MINE SHAREBROKER, LELANT, HAYLE, CORNWALL.

MINES INSPECTED by experienced AGENTS, and correct information furnished 25

NOTICE.—Mr. EDWARD KING has REMOVED to No. 27, AUSTINFRIARS, OLD BROAD STREET, where all communications relative to the following mines will receive immediate attention:—Pembroke and East Crinnis Mining Company, North Buller, Wheal Uny, Boiling Well, Wheal Harriett and Clijah and Wentworth. 26

MONEY FOR MORTGAGES.—TWELVE THOUSAND POUNDS are ready for APPROVED MORTGAGES at THREE PER CENT. A long term of years will be granted, if desired by the borrower. This £12,000 is the entire property of Mr. Coward, who will not negociate with any but the principal for the loan of his money.—Address, by letter only, free of postage, John James Coward, Esq., Lansdowne-crescent, Bath.—Feb. 9. 27

THE IMPERIAL BRAZILIAN MINING ASSOCIATION being desirous of ENGAGING the SERVICES of a GENTLEMAN of education and habits of business, as CHIEF COMMISSIONER, to SEND to the BRAZILS, to superintend the affairs generally, and the estates and mining properties of the Association in that country, applications are invited, transmitting testimonials of fitness for that office, addressed to the managing director, on or before the 28th inst. Gentlemen who hold, or have held, commissions in Her Majesty's service, or official appointments under Government, would be eligible.

Winchester House, Old Broad-street, London, Feb. 8, 1853. 28

WANTED,—A good, practical, and experienced CIVIL ENGINEER as SUPERINTENDENT and CHIEF MANAGER of the CORPORATION WATER-WORKS, in the City of Oxford. His whole time will be required in the discharge of these duties. He will have an office provided for him, and be paid a salary of £100 per annum, in addition to 5 per cent. on the Water Rents, which at present exceed £1000 per annum, with the certainty of a large increase.

All applications must be in writing, with testimonials, addressed to the Town Clerk, Oxford, on or before the 1st day of March next. 29

MINING CLERK.—WANTED an efficient, ACTIVE YOUNG MAN, well versed in mining accounts.—For particulars, apply at the office of the Knockatrellane Copper Mining Company, 3, Great St. Helen's, Bishopsgate. 30

WANTED, an AGENT for a LEAD MINE in DEVONSHIRE. Salary Eight Guineas per month.—Testimonials to be sent to Messrs. May and Bidwill, 7, Castle-street, Exeter, on or before Monday, the 21st. inst. None need apply who have not filled at least five years' experience as a captain.—Feb. 8, 1853. 31

TO MINING CAPTAINS.—WANTED, an experienced AGENT for a LEAD MINE in WALES.—Apply, by letter only, to Mr. J. B. Balcombe, 19, Royal Exchange, London. 32

WANTED TO PURCHASE, a small HIGH-PRESSURE BLAST-ENGINE, direct acting, with HORIZONTAL CYLINDERS, to assist a larger engine, now erected at an ironworks in South Wales. The present column of blast is equal to about 2½ lbs. The steam cylinder of the engine required should be from 24 to 30 in. diameter, with other parts in proportion.—Offers to be addressed to "S. W.," *Mining Journal* office, 26, Fleet-street, London. 33

WANTED TO PURCHASE, a HIGH-PRESSURE CYLINDRICAL BOILER, with EGG ENDS, about 22 or 24 ft. by 5 ft. or 5 ft. 6 in.—Apply to J. Harden, Hawkesbury Colliery, near Coventry. 34

TO BE SOLD, about 180 or 200 yards of 16-in. PUMP-TREES, with WORKING BARRELS, BUCKET DOOR, and BLAST-HOLE PIECES.—Apply to Mr. Harden, Hawkesbury Colliery, near Coventry. 35

WEST PHŒNIX SHARES.—FIVE of the above SHARES TO BE SOLD, for the highest offer. Pecuniary pressure is the cause of their being sold.—Apply, by letter, to "A. B. C.," Post-office, Kidderminster. 36

VALUABLE MINING SHARES FOR SALE.—15 Great Crinnis; 10 Cawson Hill (£1 paid); 10 Treworlis and Trevithick, tin and copper (10s. paid); 18 Union Tin (10s. paid); and 13 Anglo-Californians. It is requested that any parties wishing to purchase will state their price at once.—Apply, by letter, on or before Tuesday next, to "T. U. V.," *Mining Journal* office, 26, Fleet-st., London. 37

TREGONEBRIS AND CARNEBONE FAT-WORK MINES, WENDRON, CORNWALL.—For particulars of these valuable mines, apply to Mr. George Spratley, 2, Winchester-buildings, London. 38

THE ATLANTIC AND PACIFIC JUNCTION COMPANY

(Navigation through the Isthmus of Darien without locks).

Provisionally registered. To be incorporated by Royal Charter, or Act of Parliament, limiting the liability of the shareholders. Capital £15,000,000 sterling, in 150,000 shares of £100 each; deposit, 10s. per share, without further liability, being the amount limited by the Act 7th and 8th Vic., cap. 110.

PROVISIONAL DIRECTORS.

CHAIRMAN—The Right Hon. Lord WHARNCLIFFE.
DEPUTY-CHAIRMAN—JOHN PEMBERTON HEYWOOD, Esq.
J. S. BROWNRIGG, Esq., Governor of the Australian Agricultural Company.
CHARLES BROWNELL, Esq., Liverpool.
THOMAS R. CRAMPTON, Esq., 2, Kensington-square.
EDWARD CROPPER, Esq., Liverpool.
J. C. EWART, Esq., Liverpool
G. D'OILER GOWAN, Esq., Copthall-court.
W. J. HAMILTON, Esq., Chesham-place.
LEWIS H. HASLEWOOD, Esq., Highgate.
T. H. HOPE, Esq., Piccadilly.
HUGH HORNBY, Esq., Chairman of the Chamber of Commerce of Liverpool.
Admiral C. E. MOORSOM, R.N., Highfield, Birmingham.
Captain M'KINNON, R.N., 4, Hyde-park-place.
A. MONTEYA, Esq., Consul-General for New Granada.
FRANCISCO DE RIVEIRO, Minister Plenipotentiary from the Government of Peru in Paris.
EZEQURIL ROGAS, Esq., Minister of New Granada.
MELVIL WILSON, Esq., Albemarle-street.
ALEXANDER WILSON, Esq., 34, Bryanston-square, Director of the Bank of Australasia.

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(With power to add to their number,)

BANKERS—Messrs. Heywood, Kennards, and Co.
SOLICITORS—Messrs. J. C. and H. Freshfield.
OFFICIAL AUDITOR—J. E. Coleman, Esq.
SECRETARY—Dr. Black.
ENGINEER IN CHIEF—Lionel Gisborne, C.E.

TEMPORARY OFFICES—36, MOORGATE-STREET.

The object of this company is to unite the Atlantic and Pacific oceans by an open navigation across the Isthmus of Darien.

The vast importance of this design has long made it a subject of anxious attention to all civilised nations. So early as the year 1699, when commerce and engineering science were comparatively in their infancy, Mr. Paterson, the founder of the Bank of England, obtained an Act of Parliament, under which the large sum of £500,000 was subscribed for this purpose, but this design was frustrated by the influence of the new East India Company.

It was believed that the great elevation of the Cordilleras presented an insurmountable barrier to the opening of a passage by sea, and the supposed difference of the level of the waters in the two oceans formed a further imaginary obstacle. The period having arrived when the spread of commerce and flow of emigration from the over-populated countries of Europe to the western shores of America, Australasia, and China, demand a passage more direct than by the Cape of Good Hope or Cape Horn, various projects were formed for uniting the two oceans by roads, railways, and canals, and the routs by Nicaragua in the north, Chagres in the centre, and Atrato in the south of the Isthmus, were selected by different parties for these purposes.

All these projects, though intented in some measure to meet the exigency, where open to the manifest objection that they fell short of supplying a continuous channel from sea to sea for vessels of all dimensions, by which alone transhipment could be obviated, and the object in view adequately obtained.

That the Isthmus of Darien admitted of a communication of this naturewas first urged upon the consideration of Sir Charles Fox, by Dr. Cullen. After much enquiry and investigation into the existing charts and surveys of the country, so many reasons for the conclusions advanced were discovered that, after the communications with the governments of England and the United States, who cordially responded to the call for a co-operation in a cause of such vast importance to the interests of the world, Sir Charles Fox resolved dispatching engineers to the spot for the purpose of examining the country and reporting on the feasibility of the undertaking.

Arrangements were accordingly made with Mr. Lionel Gisborne, a civil engineer of great experience in the execution of navigations, to proceed to the locality indicated by Dr. Cullen, which lay in the narrowest portion of the Isthmus between Chagres and the River Atrato, a part of the country believed not to have been traversed by any European for two centuries.

Sir Charles Fox, Mr. John Henderson, Mr. Thomas Brassey, and Dr. Cullen, applied to the Congress of New Granada for a concession of territory between the point of Mosquitos and the western mouth of the Atrato, which was complied with by a grant of about 200,000 acres, for a canal, a railroad, or a road, conditional on the sum of £24,000 being deposited within 12 months, to be returned without interest on the opening of the communication, and was accompanied by assurances of cordial co-operation on the part of the Government.

Mr. Gisborne, accompanied by his assistant, Mr. Henry C. Forde, arrived at the Bay of Caledonia in the month of May, 1852, and after surveying the coast on both sides and, the intervening country, ascertained, beyond doubt, that between the Bay of Caledonia on the Atlantic, and the Gulf of St. Miguel on the Pacific, there is a distance of only 30 miles between deep water, on either side, consisting of land generally level, which in no case is of considerable elevation, or presents greater obstacles than have been surmounted on railways and other engineering works; and he returned to England, reporting his opinion that three modes existed of effecting the object, the most costly, but most effectual of which was to construct an open channel between the two oceans, as originally proposed, which can be executed in five years from the date of its commencement, at a cost not exceeding 12 millions.

The practicability of forming an inter-oceanic navigation, without locks, having been thus ascertained, it is now proposed to form a company to carry out this great work in co-operation with the Government of the United States and the European Powers interested in it, on such terms as may make the undertaking permanent, secure, and profitable.

As a mercantile investment, there is no doubt that this inter-oceanic navigation is capable of being made one of great pecuniary advantage. No sufficiently authentic account exists of the number of vessels or the amount of tonnage which passes round Cape Horn and the Cape of Good Hope to the western coast of America, Australasia, and China; but sufficient data have been obtained to prove that the tonnage is so great as to make a small toll on vessels passing through this channel a source of very large return on the capital required, while a toll of considerable amount would be a very small burthen in comparison with the vast saving of expense to sailing vessels and steam-boats in time and money, by the use of so short and desirable a passage.

Upon these points it is not necessary here further to dilate. It is not intended to embark in the execution of the work without the most satisfactory assurances, based on the fullest inquiry and investigation into the prospects of the undertaking in every respect.

For the present purpose it is proposed to raise a nominal capital of £15,000,000 sterling, in shares of £100 each, of which 10s. per share will be paid on allotment, forming a fund of £75,000. This sum will suffice to defray the preliminary expenses incurred, to pay the deposit required by the terms of the concession, and provide for the expenses of prosecuting such further surveys and investigations, and also negociations with the Governments both at home and abroad, for grants, or guarantees, or co-operation in such other form as may be deemed necessary to success.

The sum of £14,000,000 sterling is believed upon the authority of the subjoined report of Mr. Gisborne to be amply sufficient for the execution of the works on the largest scale, and the capital has been fixed at £15,000,000 in order to provide a sufficient fund for payment of interest to the shareholders during the progress of the undertaking, in the event of no better arrangement being made for obtaining it.

A Charter of Incorporation or Act of Parliament, conveying limitation of liability, is considered essential, and parties taking shares will not be liable to any further call beyond the deposit, until a constitution on one or other of these bases has been obtained, or without the sanction of a general meeting, and any shareholder desirous of withdrawing at any time will be permitted to do so on sending in his scrip for cancellation, and forfeiting the deposit paid on his shares.

In order to meet the wishes of those foreign Governments whose co-operation will be sought in securing the neutrality of this navigation, pursuant to powers contained in the concession, and who may also desire pecuniary participation in this enterprise, it is part of the proposed arrangements to take measures for ascertaining, at as early a period as possible, the extent to which such nations wish to become interested, and the form in which they propose to do so; and to give effect to their views in these respects it may ultimately become necessary to reduce the shares to a smaller nominal amount, so as to admit these parties into a participation in the capital, or to extend it with that object.

It is understood that the concessionaires (in lieu of any other remuneration) are to have a tenth part of the nett annual profits, after payment of a dividend of 5 per cent. on the capital. The preliminary expenses hitherto incurred do not exceed £5000.

Applications for shares may be addressed to the directors, according to the subjoined form, and prospectuses and forms of letters of application may be had at the company's offices, and of Mr. Edward Haslewood, 15, Angel-court, London.

TO MESSRS. FOX, HENDERSON, AND BRASSEY.

GENTLEMEN,—According to my instructions, I proceeded in April last, with my assistant, Mr. H. C. Forde, to the Isthmus of Darien, to ascertain whether the country would admit of the construction of an inter-oceanic navigation, 150 ft. wide, 30 ft. deep, and without locks, as proposed by Sir Charles Fox.

The accompanying map and section are compiled from personal observation. The following are the leading natural features of the locality:—

The distance between the tidal influences of the two seas is 30 miles.

The mean water of the two oceans is nearly level. On the Pacific the tide rises from 22 to 25 feet (spring and neap), on the Atlantic from 14 to 18 inches.

Excellent natural harbours exist at each end of the proposed navigation; that at St. Miguel, on the Pacific, being, without doubt, one of the finest in the world as regards its extent, depth of water, freedom from shoals, land-locked character, and ease of access. The Caledonia and Savannah Rivers run through two extensive plains, the separating ridge being 150 feet over the mean water of the oceans. These plains, though flat, are sufficiently elevated to be dry, and consequently free from those unhealthy influences which affect many parts of the fathmus of Panama.

The tide flows up the River Savannah for 18 miles. For seven miles above its mouth there is 6 fms. deep at low water, with a breadth of nearly half a mile. The material to be excavated in forming the channel consists of alluvial deposit, clay, gravel, and rock: the latter is a dark sandstone, very regular in the stratification, and lying most advantageously for removal.

Having ascertained these facts, it is recommended to form a navigation between the two oceans, which will, without locks, at all times permit the passage of the largest vessels, having 150 feet breadth at mid-water, and 30 feet depth at low tide. In consequence of the Pacific rising above and falling below the level of the Atlantic, there will during every tide be a current flowing each way, whose greatest velocity will not exceed three miles an hour. This is a most important point; the direction of the trade will naturally follow the flow of the tide, so that the meeting of vessels will be obviated, and the navigation kept free from deposit.

In calculating the cost, nearly the whole of the material has been estimated as rock, and at prices 75 per cent. above the cost of the same class of work in England; allowance has been made for imported labour, and a sufficient sum set down for preliminary arrangements:—

Cost of excavations, masonry, &c., for completion of the navigation	£12,000,000
Interest on capital during progress of work	2,000,000
Preliminary arrangements, importing labour, purchase of land, &c.	1,000,000
Total	£15,000,000

The capital appears large, but the return will be in proportion to the magnitude of the undertaking. This is not a question dependent on local trade; every maritime nation has an interest in its success, and the commerce of the world will yield the profits. Moreover, the vast supplies of gold now discovered afford means which cannot be applied to more beneficial objects than in extending the blessings of civilisation by thus facilitating the operations of commerce.

In such a case statistics are almost superfluous; it is safer to consult the history of the progress of commerce, and argue from it, than to calculate profits from the existing state of things. But even on this limited ground it can be shown that the capital invested will meet with a good return, by charging only a little more than the amount saved in the insurance, without reference to all the other advantages which this route will offer. From the trade statistics it appears that in 1851 upwards of 3,000,000 tons of shipping, and 150,000 passengers would in that year have taken advantage of this navigation. The question of engineering resolves itself into the removal of a large quantity of material, and the time necessary to do it in. Nature not only facilitates in a most remarkable manner the execution of the necessary works, but also provides an assistant motive-power for the transit of shipping by the fortunate variation in the level of the tides, causing a current to flow each way alternately. My own experience, and a thorough investigation of the question, led me to fix three miles an hour as the maximum rate at which the current would flow, and the facts and observations upon which I arrived at such an opinion have since been submitted to the most scientific men of the day, who fully corroborate my conclusion.

The requirements of the age demand this inter-oceanic junction, and as every nation is interested in it, both politically and commercially, it is to be hoped that this undertaking will receive the cordial support of the civilised world.

I am, Gentlemen, Your obedient servant,
41, Craven-street, Strand, London, Dec. 7, 1852. LIONEL GISBORNE, C.E.

FORM OF APPLICATION FOR SHARES.

To the Provisional Directors of the Atlantic and Pacific Junction Company.

Gentlemen,—I request that you will allot to me shares of £100 each in the above company; and I hereby undertake to accept the same, or any less number you may allot me, and to pay the deposit of 10s. per share thereon, and to sign the subscribers agreement when required. Dated this day of

Name in full .....
Place of business .....
Residence .....
Business or profession .....
Signature .....
Name, residence, profession, and reference ..

THE ARDENNES (OF BELGIUM) COPPER, LEAD, AND SULPHATE OF BARYTES MINING COMPANY.

Société en commandite, by which no Deed of Settlement is required to be signed. The shares being paid up in full on allotment are "to bearer," and the holders entirely exonerated from further liability.

Capital £30,000, or 750,000 fr., in 30,000 shares of £1 (or 25 fr.) each, payable on allotment.

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COUNCIL OF SUPERVISION IN BRUSSELS.

Mons. J. MAUBACH, Avocat, of the High Court "de Cassation," and Standing Counsel to the Finance Department of the Belgian Ministry.
Baron De ROMBERG, Director of the Sautour Mining Company.
Mons. ANTOINE PONCELET, Engineer-in-chief, and Director of the Government Railways in Belgium.
Mons. FIRMIN FISCHER, Superintendent Engineer of the Government Railways in Belgium
Mons. ALEXANDRE MATTHYSSENS, of Philippeville, proprietaire.
Mons. LEONARD EUGENE MOMMAERTS, of Brussels, proprietaire.

COUNCIL IN LONDON.

The Hon. D. A. BINGHAM, Great Portland-street, London, and of Northbrook, county Mayo, chairman of the West Carberry Mining Company.
Sir EDWARD GRAHAM, Bart., Admiralty, and of Esk, Cumberland.
GEORGE HARRISON, Esq., F.S.A., Harleyford-place, Kennington
WILLIAM B. MITCALFE, Esq., 4, Brabant-court, and Coal Exchange.
MARK PINKERTON, Esq., 138, Leadenhall-street.

GERANT—Mons. Adolphe Marie Neubourg Tercelin, Rue Traversiere, 49, Brussels.
BANKERS IN BRUSSELS—Messrs. Brugmann et Fils, Rue d'Aremberg, No. 9.
BANKERS IN LONDON—London and Westminster Bank, Lothbury.
CONSULTING ENGINEER IN BELGIUM.—Mons. L. J. Chevremont, Engineer-in-chief of the Government Corps de Mines in Belgium.
RESIDENT MINING CAPTAIN—Mons. Jean Francois Brahy.
SOLICITORS—Messrs. Hancock and Sharp, 20, Tokenhouse-yard.
BROKER—Mr. George F. La Serre, 4, Bank Chambers, Lothbury.
SECRETARY—Mr. Robert Watt.

OFFICES—IN BRUSSELS, RUE TRAVERSIERE, 49.
" IN LONDON, 1, THREE KING COURT, LOMBARD STREET.

This Company is established in Brussels under the Belgian law of "*commandite*," by which the liability of each shareholder is limited to the amount of his share, and these shares being paid up in full on allotment, and being to bearer (*au porteur*) are not subject to any call or registration, and no deed has to be signed.

Under the law (*en commandite*) the affairs of the company are conducted by the *Gérant*, assisted by the Council of Supervision in Brussels, but the Council in London will have full powers of supervision of the funds and affairs of the company.

The mineral properties acquired by this Company, the right to the concession, and for the working of which it has been established, extend over upwards of 1500 acres, English measure, and consist of lodes of copper, lead, and sulphate of barytes, of great value, as after described, situated in the district of Ardennes, in the commune of Chanley, in the province of Belgian Luxemburg, and in the adjoining communes of Resteigne, Willin, and Lomprez, in the province of Namur:—

COPPER.—Three lodes have been already opened varying from 1000 to 1300 yards in length, the average produce of which contains 17 per cent. of copper, as will be seen from the annexed analyses. This discovery is of great value, not only to Belgium, which derives its supply entirely from foreign countries, but is of more than ordinary importance at the present moment to this and other consuming countries, from the great scarcity and high prices ruling for this valuable metal.

LEAD.—Six lodes of argentiferous galena, of extraordinary richness, have been discovered, samples of which, according to the annexed analyses, yield from 77 to 83 per cent. of lead.

BARYTES.—In addition to copper and lead, the property contains an almost inexhaustible mine of fine white sulphate of barytes, which is extensively used by the manufacturers of white lead, white zinc, glass, of beet-root sugar, and for numerous other important purposes in Belgium and France, where these countries have hitherto had to import this essential material from Germany, at a cost exceeding by 50 per cent. the price at which it can be supplied by this company.

These mines have been inspected by Mons. L. J. Chevremont, engineer in chief of the Government Corps de Mines in Belgium, and by Mr. Hiram Williams, of Moorgate-street, London, mineral engineer; and from their reports, which may be had at the company's offices, it will be seen that these properties are not only of unusual richness in mineral wealth, but from local advantages can be most economically worked. (Since the date of these reports, another copper lode has been discovered upon the property, of equal promise.)

From the favourable position of the sett on the banks of the River Lesse, one main adit or intersecting level, through which the principal lodes of both copper and lead can be more fully opened, will be sufficient to drain the mine for many years; whilst a most desirable site is thereby secured for the mine-yard, washing-tables, dressing-floors, &c., contiguous to the stream, whose water will be employed for all purposes connected with the preparation of the ores.

The facilities for transport are highly advantageous. From Dinant, in the vicinity of the mines, there is a cheap and regular communication to Antwerp for shipment to the smelting works in England, and these facilities will be further increased on the opening of the great Luxemburg Railway, which will pass within three miles of the mines

These extensive and valuable mineral properties will be held by this company in perpetuity, on most favourable terms—the proprietor, in proof of his confidence in the large resources of the mines, having agreed to receive the whole price in paid-up shares—viz., 10,000 at present, and 2000 when the mines shall have yielded 20 per cent. dividend to the shareholders.

There is payable to the surface proprietors a small nominal rent, and a royalty of 6 per cent. on the clear nett profits, subject to a commutation by an annual payment.

The mines of sulphate of barytes are capable at an early period of yielding 400 to 500 tons per month, and inexhaustible in quantity. A vend of 400 tons only per month, and at a profit of £1 5s. per ton (*vide* M. Chevrement's reports) will yield an available profit of £6000 per annum from this source alone, being equal to 20 per cent. on the entire capital of the company.

In addition to the detailed reports of M. Chevremont, the engineer in Belgium, and Mr. Hiram Williams, as to these mines, the council deemed it prudent to obtain from the latter a report as to the capital necessary to their development, and the purchase-money which, in his judgement, would be reasonable and fair to be paid for the properties, and the council have made their arrangements in conformity with that gentleman's report.

The Council have also requested Monsieur Chevremont, the consulting engineer of the company, to furnish a detailed statement of the probable yield of the mines belonging to this company, and of the entire cost of working, conveyance, &c., &c., and they have received from him a report, dated the 16th November, 1852, wherein he estimates the annual nett profits as follow:—

Upon copper, four lodes	fr. 259,200	or	£ 10,368
" Lead, six lodes	225,000	"	9,000
" Barytes	168,000	"	6,720
Total	fr. 652,200	or	£ 26,088

Fortified with these reports, and looking at the proximity of these mines, not only to England (being within 24 hours of London), but to France, and other equally important continental markets, the cheapness of labour and fuel, the laborious habits of the Belgian population, and the equitable and cons itutional system of its Government, the Council have no hesitation in submitting these mineral properties as offering unusual advantages for the safe and profitable investment of capital.

The capital of the company is divided into 30,000 shares, 12,000 whereof are reserved for the vendor and concessionaire, and 5000 for allotment in France and Belgium. The Council, therefore, will have it in their power to issue 13,000 shares only to the English public.

Plans of the locality, with specimens of the ores, and the detailed reports of the engineers, &c., can be seen at the company's offices.

Applications for shares may be made to the broker, Mr. George F. La Serre, 4, Bank Chambers, Lothbury; to Mr. James Truscott, mining agent, 1, Three King-court, Lombard-street; or to the secretary, at the offices of the company.

RESULTS OF THE ASSAYS OF THE SEVERAL SPECIMENS OF LEAD AND COPPER-ORES.

28, Bucklersbury, August 26, 1852.

CHANLY LEAD ORE (No. 1).—We beg to hand you the following report of the sample of ore left with us to get assayed for lead and silver. We found it to contain 1 oz. 12 dwts. 16 grs. of silver per ton of 20 cwts., and 83 per cent of lead.

(Signed) CLAY AND GILLMAN.

City School of Chemistry and Assay Office, 1, Sun-street, Bishopsgate-st., June 9, 1852.

CHANLY LEAD ORE (No. 2)—Contains 1 oz. 9 dwts. 9 grs. of fine silver per ton of 20 cwts., and 79 per cent. of lead.

RESTEIGNE LEAD ORE—Contains 1 oz. 12 dwts. 6 grs. of fine silver per ton of 20 cwts., and 77 per cent. of lead.

CHANLY COPPER ORE—Average produce of three lodes contains 17 per cent. of copper.

(Signed) JOHN MITCHELL, F.A.S.

FORM OF APPLICATION FOR SHARES.

To the Council of the Ardennes Copper, Lead, & Sulphate of Barytes Mining Company.

Gentlemen,—I request you will allot to me shares of £1 each in the above company, and I agree to accept the same, or any lesser number that may be allotted to me, and to pay the amount thereof when required.

Dated this day of , 1853. Name.....
Reference..... Address.....

ASHFORD CONSOLS COPPER AND SILVER-LEAD MINE,

SITUATE IN THE
PARISH OF LLANIDLOES, MONTGOMERYSHIRE, NORTH WALES.
CONDUCTED ON THE COST-BOOK PRINCIPLE.
In 6000 shares of £1 each.

41

OFFICES,—5, ADAM'S COURT, OLD BROAD STREET, LONDON.

The sett extends for about 4½ miles in length, and nearly 1½ mile in breadth. There are all necessary buildings and erections on the mine, with seven valuable lodes, fully laid-open, and a good parcel of ore ready for the market.—Applications for the remaining shares to be made to the secretary, at the offices of the company, where plans and prospectuses may be had. By order of the Board,
GEORGE EDWARD FENTON, Secretary.

SOUTH ALFRED CONSOLS COPPER MINE,

HAYLE, CORNWALL.
CONDUCTED ON THE COST-BOOK PRINCIPLE.
In 5000 shares of £1 each.

42

OFFICES,—5, ADAM'S COURT, OLD BROAD STREET, LONDON.

This sett is of ample extent, being 600 fms. from east to west, and 400 fms. from north to south; and the lease is for 21 years, at a royalty of 1-16th. The rich and well-known lode of the Alfred Consols has been discovered in this sett.—Applications for the remaining shares to be made to the secretary, at the offices of the company, where plans and prospectuses may be obtained. By order of the Board,
GEORGE EDWARD FENTON, Secretary.

SOUTH DEVON GREAT CONSOLS MINING COMPANY.

Capital £21,000, in shares of £1 each, to be paid up in full on allotment.
No call—no Deed to be signed—and no further liability.
CONSTITUTED ON THE COST-BOOK PRINCIPLE.

43

COMMITTEE OF MANAGEMENT.

ALFRED SMEE, Esq., F.R.S., 7, Finsbury-circus.
JOSIAH HUGO HITCHINS, Esq., Devon Great Consols Mining Company.
JAMES GEORGE B. LAURELL, Esq., 77, Gloucester-place, Portman-square
THOMAS NICHOLLS, Esq., Bedford Iron-works, Tavistock
THOMAS FREDERICK BEALE, Esq., 201, Regent-street.
BANKERS—Messrs. Rogers, Olding, Sharpe, and Co., Nicholas-lane.
SECRETARY—George Angus, Esq.
SOLICITOR—F. P. Chappell, Esq., 25, Golden-square.
BROKERS—Messrs. Foster Brothers, Tokenhouse-yard.
OFFICES—22, MOORGATE STREET.

The South Devon Great Consols sett is situated in the parish of Calstock, in the county of Cornwall, on the Cornish side of, and adjoining, the River Tamar.

It is surrounded by several of the productive and promising mines of the district; on the north-west by South Wheal Maria and Wheal Williams, on the south by Hingston Down Consols, on the south-east by the formerly rich old Gunnis Lake Mine, and on the east by Hawkmoor, and on the north-east by the far-famed Devon Great Consols Mines (the river only between), the dividends received by the proprietors from which, in the last eight years, have exceeded £40,000 a-year.

The grant of the sett is for a term of 20 years, from the Duchy of Cornwall, commencing August, 1852, subject only to the reasonable payment of 1-15th dues; and the covenants and agreements generally of the grant are in all respects favourable to the grantees. The sett extends for a distance of 1½ mile easterly and westerly on the course of the lodes, and northerly and southerly on the cross-courses about ¾ mile.

The company's operations will not be distant more than 3 miles from Calstock quay, on the navigable River Tamar, to which the transit of the ores for shipment will be unusually cheap, and the back carriage of materials therefrom to the mine will add comparatively little to the general expenditure.

There has been an adit level driven for about 100 fms. west on one of the lodes into the hill from the river, the depth of which, at its now furthest point of progress, is about 40 fms. below the surface. In the course of this exploratory driving the lode is to be seen in places from 2 to 3 ft. wide and larger, composed of very fine gossan, congenial spar, mundic, and copper ore, particularly at about 15 fms. in from the mouth of the level; and it is the general opinion that it only requires deeper working to ensure very lasting profitable returns. It is undoubtedly a very important fact, that from this part of the mine (although so shallow) many tons of good ore have been raised and sold.

Amongst the well-known and highly-productive lodes which traverse this sett is the south lode of the Devon Great Consols, and Wheal Thomas lode, also Wheal Marquis, which is the main lode of the Bedford United Mines; the two former being now in a very active course of prosecution, and the prospects warranting very confident expectations that they will eventually result in great success; and the Wheal Marquis lode, it is very well known, is at present paying, and has regularly paid for many years past, very good dividends to the Bedford United Mines proprietary.

Both this last mentioned lode and the one in the adit level before referred to have been sufficiently worked on and developed to justify the very decidedly favourable and concurrent opinions expressed in the accompanying reports.

It is more than probable, also, that considerable quantities of arsenical mundic will be readily available from some of the lodes, whereby the value of the company's property will be materially increased.

One of the mines of the district, and not far distant, has been lately paying a considerable portion of its working cost by the sale of this mineral alone.

The many respectable and experienced mine agents who have inspected this property, and fully considered its position and facilities, are agreed in opinion that the proposed capital will be ample to fully develope its resources, and that it presents a more certain prospect of success to the shareholders than the great majority of such mining speculations will admit of.

The favourable opinion of the mining operatives of the district is also shown by the fact, that some of them have offered to begin to work the lode in the adit level before referred to on tribute, as soon as the company is organised.

There is an adequate supply of water-power for the purposes of hauling, grinding, stamping, and finally rendering the ores marketable; and, altogether considered, there are few mines in the kingdom which can be worked more economically.

Reports by experienced mining engineers and agents are subjoined, and maps, plans, and specimens of the ore and gossan, and the other general characteristics of the lodes, are to be seen at the offices of the company.

The present proprietors have agreed to assign their interests to the company, free from all liabilities, in consideration of receiving one-third of the shares; which cannot but be considered as evincing the fullest confidence in the results of the undertaking.

In order effectually to limit the liability of the shareholders, and to afford them sufficient control over the expenditure of their capital, a series of rules and regulations will be framed in conformity with the Cost-book Principle, to be approved of at the first general meeting of the shareholders.

Applications for shares, in the usual form, must be made on or before Monday, the 21st day of February instant, at the offices; or to the brokers of the company.

South Devon Great Consols, Nov. 27, 1852.—I have to-day inspected this extensive mineral property, situate in the parish of Calstock, Cornwall.

It comprises within its limits several lodes, only two of them, however, having been wrought on. A shaft has been sunk on the southern one some fathoms; and from observations taken while on the ground, it is the same which in the Bedford United Mines is now, and has been for a considerable time past, paying large profits. It is composed of capel, mundic, gossan, and a little tin and copper ore. The other, on which an adit level has been driven upwards of 100 fms., runs through the centre of the sett, and shows in places a fine back, being composed of capel, mundic, gossan, and copper ore, and from which several tons of the latter have been sold. In the bottom of this driving two winzes have been sunk a few feet. In the easternmost one the lode is 3 ft. wide, of a very promising appearance, carrying on the south wall a fine capel, and on the north a leader, 2 ft. wide, containing peach, mundic, quartz, and copper ore of good quality.

There are two cross-courses running through the sett, one of which is now to be seen in the present adit end driving; and will, no doubt, have a very good effect, as they are almost invariably found in connection with the largest deposits of copper ore.

In conclusion, I beg to say, looking at the geological features of the property—having the granite to the south, and killas to the north, and the lodes being a continuation of those passing through Wheal Marquis and the southern parts of the Devon Great Consols setts—that when they are properly developed, this concern will prove one of the best in the district. JAMES RICHARDS,
Chief Superintendent of the Devon Great Consolidated Copper Mines.

South Devon Great Consols, Nov. 30, 1852.—I herewith beg to hand you my report of the above mine, situate in the parish of Calstock, Cornwall.

This sett is extensive, and contains several lodes. In one an adit level has been driven about 100 fms., and in places is of great promise, being composed of capel, spar, mundic, and copper ore.

In the bottom of this level two winzes have been put down, but for a few feet only; and judging from the rocks of capel, mundic, and copper ore taken therefrom, the strong presumption is that large quantities of the latter will be found at an increased depth. A shaft has been sunk a few fathoms on the south lode, which contains gossan, spar, mundic, and capel, with spots of tin and copper ore.

There are two cross-courses running through the sett, and no doubt large masses of copper ore will be found more particularly in connection therewith.

Taking into consideration the favourable general features of the ground, and the great productiveness of the adjoining mines,—viz., Devon Great Consols, Bedford United, and the Hingston Down Consols—it is probable the same results will follow this undertaking when fairly developed THOMAS RICHARDS,
Chief Mining Engineer of Wheal Trethevy Mine, and Great Rough Tor Consols and other mines.

The South Devon Great Consols sett is situate in the parish of Calstock and county of Cornwall, and is a very extensive one, being upwards of a mile in length from east to west, and nearly the same in breadth from north to south. It is surrounded by mines, some of them of the first class, and others of great promise, being bounded on the north and east by the Devon Great Consols, on the south and west by Hingston Down and other very promising setts, where vigourous operations are being carried out; the stratum in one part of the sett is clay-slate, or killas, and in the other part granite, which is very desirable. There are several lodes passing through the sett, some of which, falling into the Devon Great Consols, have been worked on, and found to be very productive. No workings to any extent have been made on those lodes in South Devon Great Consols, with the exception of one, on which an adit level has been driven for about 100 fathoms or upwards, and from which several tons of copper ore, of good quality, have been raised.

There are also several cross lodes, or cross-courses, running through the sett, one of which, having been opened on in an adjoining sett was found to be very large, and containing some good stones of silver-lead ore, and which would be intersected in a short time by a continuation of the before-mentioned adit level.

Considering the highly mineralised district in which the South Devon Great Consols sett is situated, its locality with reference to other prosperous mines, the several lodes and cross-courses passing through it, I have not the least doubt, if its resources are properly developed, that it will prove a highly remunerative adventure.

N. SECCOMBE, Capt. of Wheal Clitters Adit.

South Devon Great Consols, Dec. 1, 1852.—This sett is very extensive east and west, as well as north and south, being bounded on the north of east by Devon Great Consols, also south of east by the Bedford United, south and west by Old Gunnis Lake Mine and Hingston Down Consols. The southernmost lodes of the Devon Great Consols run through the north part of this sett, which is in killas of the most promising character for producing copper. There has been an adit level driven west, on the course of a lode, about 100 fms., from which several tons of copper ore have been sold, and the principal part of this ore was raised from a winze in the bottom of the same level, where the men were overpowered by water, and obliged to abandon on account of the want of machinery. In the south part of this sett there has been another large lode laid open, producing a good gossan; this part of the mine is in granite, and the lode in question supposed to be the Bedford United lode, and it traverses through the whole of this sett. There are other intermediate lodes which remain yet to be laid open. From the position of this concern, looking at the junction of the killas and the granite, I have no doubt that, if prosecuted with economy, this mine will become as productive as her neighbours. HENRY RICKARD,
T. Nicholls, Esq. Captain of Devon Consols North and Devon Kapunda

ERICSSON'S CALORIC ENGINE.

Mr. George Crispe is at present daily delivering, at the Polytechnic Institution, a popularised lecture upon the subject of Ericsson's new motive-power. In consideration of the interest attaching to the topic, we give his lecture as he delivers it :—

This new motive-power may be properly classed under the head of thermodynamic engines, or those in which power is obtained through the agency of, heat. The word caloric was introduced by the celebrated French chemist Lavoisier, for the purpose of designating what he termed "the principle or matter of heat, or the simple element of heat;" regarding heat as an effect merely, and caloric as the cause of it. It is not at all necessary, however, that this abstract view of the matter should be considered in order to fully understand either the action or theory of the new engine. For all practical purposes caloric and heat may be regarded as synonymes, and in the present instance we prefer employing the latter, as it is more generally understood.

Heat, the effects of which are so truly wonderful in connection with the organic creation, exhibits surprising changes also in the inorganic world, modifying matter in a variety of ways, and rendering it subservient to the uses of man; not the least remarkable fact being, that all bodies, whether solid, liquid, or gaseous, expand under its influence. It is this all but universal law (there being one partial exception) which is taken advantage of in the caloric engine. It has been found that atmospheric air expands for every degree of heat imparted to it about 1-480th part, so that if we raise its temperature 480° we double its bulk. If it can be imagined, therefore, that we take a closed vessel of iron or other suitable material filled with atmospheric air, the temperature of which we then proceed to raise, the air in its endeavour to expand will exert a force tending to burst the sides of the vessel, and, as it is with steam when confined, the force it exerts to get free, if properly applied, may be turned to a useful account.

Sir George Cayley, the president of this institution, was the first person to arrange an air engine in anything like a suitable form for practice, and so great a similarity is there between his and Ericsson's contrivances, that if we understand the one the other will be evident; so that whilst we are taking the readiest means for the elucidation of our subject, we shall at the same time be awarding a suitable tribute to those who have paved the way to this important invention.

A stove was divided into two compartments, so that atmospheric air, upon being forced into one, made its way through the fire into the other. In its passage it, of course, became heated, and consequently expanded—say, to twice its original bulk. This heated air was then permitted to make its way into a cylinder similar to that of a steam-engine, when, by the usual mechanism of the slide valve, &c., the piston having been driven to the top of the cylinder, was then driven down again, and a reciprocating motion kept up so long as air was applied to the stoves—the hot air, which had done its work, being allowed to escape into the atmosphere. Now, in order to furnish the stove with air, a supply cylinder, or air-pump, of about half the capacity of the working cylinder, was placed in an inverted position under it, the two pistons being connected by the intervention of a rod merely; so that every time a large cylinder full of air was used, a small cylinder full was pumped into the stove, where, being at once increased in bulk by the fire, it became capable not only of filling the working cylinder but exerting a useful mechanical effect at the same time. This engine was tested by Mr. Babbage, Mr. G. Rennie, and other scientific gentlemen, and found to be equal to 5-horse power, with a consumption of about 21 or 22 lbs. of coke per hour.

In 1817, Mr. Stirling, of Edinburgh, contrived an engine in which air was heated and cooled at the opposite ends of a vessel, so that whilst he obtained a force by the expansion of the air, a reaction was produced by its contraction. He introduced at the same time what has since been termed, in Ericsson's engine, the "regenerator," a contrivance the beauty of action and importance of which it is impossible to overrate. In it we have a remarkable illustration of the power which man possesses over even those elements of the very nature of which he is in absolute ignorance. In this instance, operating upon one which is imponderable, he may in simple language be said to apply a suitable sieve, and to sift out heat from atmospheric air. In the new engine, this is a *sine qua non*—take it away, and the thing is useless; retain it, and there is no telling where the economy in fuel may end. In order to explain it, imagine the heated air which has already done its work passing from the hot to the cold end of the vessel, where, under ordinary circumstances, all the heat which has been imparted to it is taken away by the refrigerating surface, and for all practical purposes lost. Upon the return of the air, therefore, from the cold to the heated end of the chamber, as much heat must be imparted to it as will elevate its temperature from (say) 60° to 500°; but, under such circumstances, the engine would not be economical. Now, imagine, instead of this condition of things, that the hot air in its passage is made to pass through hundreds of parallel pieces of wire gauze, and, as it worms its way through the multitude of meshes, gradually yielding up its heat to the iron wire, which in its turn becomes hot as the air becomes cold. This having been effected, the cold air, in its passage to the hot end of the vessel, is made to traverse this labyrinth of wire in the opposite direction, take up from it the heat which had been previously imparted, and thus reach its destination at a temperature of about 400° or more, rendering it necessary for us to impart not more than 80° or 100° of heat, instead of 440° or 460°. Probably the best illustration of the action is to be found in Jeffry's metallic respirator, where the hot breath in passing out warms the wires, and the cold air in passing in is warmed by contact with them. So in the regenerator, the fiery breath of the air engine in exhalation heats the wires, which in their turn heat the cold air during inhalation.

A paper was read upon this interesting subject before the Institution of Civil Engineers in 1845, and an engine was described of the kind referred to, and of about 45-horse power, which had then been at work at the Dundee Foundry for about two years, with a consumption of little more than 11 lbs. of coals per horse-power per hour.

John Ericsson is a native of the province of Vermeland, in Sweden. At a very early age his great talent attracted the attention of the celebrated Count Platen, through whose agency he was appointed a cadet in the corps of Engineers; and, at the age of 12 years, a nivelleur, at the grand ship canal, under the count. Several works of a meritorious character emanated from him at this time—amongst others, an engine to work by the application of flame. The hope of propagating this contrivance brought him to England in 1826, but success did not attend him: he found that the clear and vivid flame of pine wood could not be obtained by mineral coals, and this proved fatal to his scheme. He afterwards became connected with Messrs. Braithwaite, the eminent engineers, and invented the "Novelty," one of the locomotives which competed for the prize upon the Liverpool and Manchester Railway in 1829. This was followed by the steam fire-engine, which created at the time so great a sensation in London. He was also one of the earliest advocates and inventors of the screw propeller.

The caloric engine, his last work, has been, it may be said, his hobby for many years, and an immense amount of both labour and capital has been expended in bringing it to its present form, which, after what has been said, will doubtless be at once understood. A working cylinder, with its piston, slide-valve, &c., is fixed in a vertical position, and a fire made beneath it, so as to elevate its temperature to about 500°. At the side of the cylinder, and communicating with it by a passage, a reservoir is placed of about three or four times its capacity. Inverted above the working cylinder is a supply cylinder, or air pump (the capacity of which is to that of the cylinder as 14 to 22·5), for the purpose of supplying the reservoir with air; and between the reservoir and working cylinder the regenerator is placed. The action is this—atmospheric air is first pumped into the reservoir, by hand, until it has reached a pressure of 8 or 10 lbs. upon the square inch; the slide-valve being then opened by the usual hand gear, this compressed air makes its way under the piston and forces it to the top of the cylinder; the piston of the air pump also being attached to that of the cylinder, is forced up by it, and the contents of the pump are, in consequence, driven into the reservoir; but now by the ordinary mechanism the slide-valve is reversed and the air, which in the cylinder has become heated to about 500°, makes its escape through the regenerator into the atmosphere, leaving its heat behind it in the manner already described; the piston having no longer anything to maintain it in its elevated position, sinks of its own weight, pulling down with it the piston of the air pump, which consequently receives a fresh supply of air; and upon the piston once more reaching the bottom of the cylinder the slide-valve is again reversed, cold air passes through the now hot regenerator, and reaches the working cylinder almost at the temperature required to repeat the operation; and so it goes on as long as sufficient fuel is supplied to the furnace, which, for the reasons given, amounts to scarcely 1 lb. of coals per horse-power per hour.

But while we can but admire the beautiful principles which are involved in this engine, and the admirable arrangement of parts for the production of the required effect, yet certain difficulties which present themselves lead us to pause, and ask, can this in its present form succeed? The difficulties are certainly of a mechanical nature merely, and we may, therefore, hope to see them removed. The most prominent are these—First, the high temperature of the cylinder renders lubrication very difficult, in consequence of the fatty matters employed becoming viscid. Then the fire being applied directly under the metal has been found by others to be fatal to its durability, and a kind of oven has been substituted; but this is not done in Ericsson's engine. The low pressure also which can be obtained under the circumstances, added to the fact of the cylinders being single-acting, renders it necessary in obtaining the requisite power to increase the piston surface enormously. In the boat *Ericsson*, for example, there are four cylinders, each 14 feet in diameter, and also their attendant supply cylinders, each between 11 and 12 feet in diameter; whereas, in a steam-engine of equal power two cylinders of 7 or 8 feet in diameter would do the same work. This enormous extent of piston surface is attended with several evils, such as great friction, increased chances of breakage, &c.; and since in the caloric engine leakage is of much more importance than in the steam-engine, this becomes a matter for serious consideration. There is also some difficulty in starting, &c., in consequence of the necessity for keeping up a supply of air in the reservoir, but whether these practical difficulties will be found of too formidable a character, practice alone can tell. We sincerely hope not; for the advantages held out by the extension of the principles involved are of no ordinary character.

HIGH-PRESSURE MARINE ENGINES.—M. Mazeline, of Havre, has recently patented an arrangement of the Woolf engine, as applied to drive the screw The difficulty of using high-pressure steam on sea-going vessels is not in the engines, but in the boilers, and he does not see anything in the boiler proposed that will obviate the usual dangers. The boiler is circular, and slightly conical, the larger diameter being above, to allow the steam to rise freely and give the steam-chest room. The furnace is cylindrical, with upright fire-tubes rising from the top of the furnace, and terminating in a smoke-box with an arched top, stayed to the top of the boiler. A number of openings are provided round the circumference, which allow the smoke to pass from the smoke-box in an annular ring round the boiler, which ring is surrounded with a water space, into which the feed water is pumped. The smoke is taken off on one side. The defects of this form of boiler are, in his opinion, numerous and weighty. The tube-plate over the fire will be apt to crack; the lower ends of the tubes will be quickly burnt out—and if an accident happens to any of the tubes they can hardly be plugged up at the lower end without great trouble, whilst at the upper end they are quite inaccessible. The ordinary locomotive boiler is much superior in these respects, is lower, and has a better fire-box; the number of stays required being amply compensated for by its advantages. Neither can he say much for the engines, each of which has three cylinders—one condensing and two high-pressure. The three stand transversely across the ship, the condensing one in the middle, having an oval trunk, to the bottom of which the connecting rod is attached. A ring, going round the top of the trunk, is prolonged on either side, to permit the piston-rods of the two high-pressure cylinders to be attached to it. The three pistons thus rise and fall simultaneously. There are two vertical air-pumps, worked off cranks driven by a bevel pinion on the main shaft, taking into two bevel-wheels on the air-pump shafts. A portion of the periphery of these wheels is made plain, so that they roll on one another, and take the thrust of the screw shaft. He does not think it would require any very great engineering ability to devise a better plan than this for applying the Woolf principle to the screw. The friction and leakage of the six cylinders, the objection to the trunk, and the weight of the moving parts being all on the down-stroke, are scarcely admissible, when there are so many other arrangements possible. Messrs. Mazeline and Co. are making two pairs of engines, of 650-horse power, for the Government, which, it is understood, are not on the above principle. Messrs. Schneider and Co. are also making four pairs at their works at Creuzot.—*Artizan.*

CLIFTON SUSPENSION-BRIDGE.—All hopes of proceeding with this undertaking appear to have been abandoned. It has been stated that the wrought-iron, which has been so long ready for the proposed structure, has been sold to the West Cornwall Railway Company; and, instead of forming part of the "permanent way" across the water from Clifton to Leigh, it will perform that office on the line of the above railway.—*Bristol Journal.*

THE WASTE GASES FROM THE BLAST FURNACE.

We recently published Mr. Blackwell's paper, as read at the Institution of Mechanical Engineers, Birmingham, and now give the interesting discussion which ensued :—

Mr. Robert Stephenson (the chairman) remarked that it was a very important and interesting subject, and well deserving the consideration of ironmasters. He observed that no heating power, except the actual temperature of the gases, would be lost by the distance of conveying the gases away from the furnace to the place where they were ignited for use; and he inquired whether it had been ascertained what was the temperature of the gases where drawn off from the furnaces?—Mr. Blackwell replied that was not accurately known, but it would not be very considerable, as the gases were not ignited. In one mode of carrying out the principle that was adopted in France, the gases were actually passed through water after leaving the furnaces, to separate all impurities and injurious matter, and also to prevent any risk of explosion. In that case, the only heat lost would be the temperature of the gases in coming from the furnace before they were ignited.

Mr. Benjamin Gibbons remarked that it had been first established by his late brother, John Gibbons, that the size of the aperture at the top of the furnace should be considerably increased over the old practice; the upper aperture he increased from 4 feet to 9 ft., and he (Mr. B. Gibbons) had tried it even 10 feet diameter; from 8 to 9 feet was found the best size, and was indispensably necessary in this district.

Mr. Blackwell said that when the top of the furnace was closed, he had found, in every instance that he had tried, the production of white iron; close tops seemed always to produce that result.

Mr. Slate had been informed that at the Middlesboro' Works, in the North of England, much stronger iron than they required for castings was produced by closing the tops of the furnaces, though not quite white iron, but a high number of pig, and that a considerable reduction of make was the general result.

Mr. Gibbons said that a plan that would answer in one district might not succeed in another district, on account of the great difference in the quality of the ores.

Mr. M'Connell noticed that it was stated in the paper that a greater proportion of carbonic oxide was found at one height than at another, and inquired whether any experiments had been made to ascertain the height from which to get the best result?—Mr. Blackwell replied that from 12 to 15 feet below the top was the greatest depth that he was aware of such a trial having been made. Carbonic acid was generated at the bottom, as the product of combustion, in the neighbourhood of the tuyeres; after rising towards the centre of the furnace the carbonic acid became converted into carbonic oxide, by taking up carbon from the mass of incandescent fuel, and carbonic oxide prevailed there; but higher still the carbonic oxide reduced the iron ore, and much of it became carbonic acid again. At the top of the furnace there was a considerable proportion of carbonic acid, with a portion of carbonic oxide, but in the centre of the furnace there was carbonic oxide alone.

Mr. Slate inquired whether, if only carbonic oxide existed in the centre of the furnace, any experiments had been tried for drawing off the gases from the centre instead of taking them from the top?—Mr. Blackwell did not know of any experiments having been made for taking the gases from the centre of the furnaces, and he believed that 15 feet from the top was the lowest that had been tried; but it must be observed that in all probability if the gases were drawn off at a lower level it would reduce the yield of the furnace, because the carbonic oxide was required to reduce the ore of the metal, and it would take away so much of the reducing power of the furnace.

Mr. Slate remarked that the practical effect would then be to shorten the furnace, and work with a very short furnace, which was known to be bad. He suggested that perhaps the reduced make of furnaces with closed tops was due to the reduction of the quantity of air entering at the tuyeres, on account of the resistance to the discharge from the top of the furnace being increased, which would tend to diminish the quantity of air blown in by the same blast engine.

Mr. Blackwell did not think that was the case, as it was not always the consequence that the yield was reduced by closing the top of the furnace; at Cwm Celyn a rather greater yield was found with a closed top to the furnace than when open. It must be borne in mind, that from the different compostion of the ores in different districts, the plan might succeed in one case, when it would not in another.

Mr. Gibbons remarked that the Staffordshire ore required a double proportion of limestone compared to the Scotch ore, and therefore more carbonic acid was generated in the blast furnace.

Mr. Stephenson inquired whether any experiments had been made relative to the actual economy produced by the employment of waste gases?—Mr. Blackwell replied, that at the Ebbw Vale Works they were raising the steam for the blast engines entirely by the waste gases from the furnaces, and also heating the blast; and from 15 cwt. to 1 ton of coal would otherwise be wanted per ton of iron made for that purpose.

Mr. Stephenson asked whether the plan was found to cause any injury to the boilers, or the heating pipes for the blast?—Mr. Blackwell said the action was found less destructive to the boilers than the ordinary fire, because the heat was very uniform, and the boiler was not exposed either to fluctuations in temperature or excess of heat.

Mr. Slate observed, that the saving of the consumption of slack in South Staffordshire would amount only to 6d. per ton upon the iron, owing to the small cost of the coal usually burnt under steam boilers.

Mr. Blackwell said, that of course there was a great difference in the value of slack with different qualities of coal; in South Staffordshire, from the slack not having a caking quality, it could be used only for steam boilers and inferior purposes; but in South Wales, most of the refuse slack was a valuable material for making coke, which increased its value very much, and made the saving an important consideration.

Mr. W. Mathews inquired what would be the effect on the heating pipes, assuming that the action on the boiler was less prejudicial? There might be a difference perceived in the effect of the action of the gases on the pipes and boilers in different districts from the variation in the quality of the materials.—Mr. Blackwell replied that he had had the plan in operation for three years in some furnaces in Derbyshire, and during that time no instance had occurred of repair being required for the hot-air apparatus; but it had to be opened about every six weeks to clear away the deposit of dust. He understood, however, that at the Dundyvan Works a considerable loss of heat appeared to be caused by the thick coating of the pipes with dust.

Mr. W. Mathews remarked, that he had been lately over the Dundyvan Works in Scotland, where the gases had been applied more extensively than elsewhere, and was informed by the manager that he considered they would be as well without this plan, as they found it had a very prejudicial effect on the heating pipes, though less perceptible on the boilers. In Wales they appeared to be using the plan with considerable advantage, on account of the greater price of fuel and coal slack. In South Staffordshire he thought it doubtful that it would be found advantageous; a very slight interference with the regular working of furnaces would be a serious prejudice both to the quality and yield of iron, and would more than counterbalance any economy arising from the application of the gases. He believed that at no other works in Scotland had the plan been persevered in, except at the three or four furnaces at Dundyvan. At the Gartsherrie Works it had been tried and abandoned.

Mr. Gibbons said, that after he had made preparations for the trial of the plan, he came to the conclusion that nothing material was to be saved by the adoption of it but 15 cwts. of slack per ton of iron, costing him only from 1s. to 1s. 6d., and, therefore, he had not proceeded in the trial of the plan; he had only proposed to try it for the boilers and the hot-blast.

Mr. Stephenson inquired what was the nature of the dust that was found to collect so rapidly on the pipes of the hot-blast apparatus?—Mr. Blackwell replied, that the chemical character of the dust was not at present well understood, but that the effects alluded to by Mr. Mathews arose simply from the mechanical action of the very large quantity of minute dust given off from the furnace, which could not be cleaned from the surface of the heating pipes so well as from the surface of the boilers, the draught not being sufficient to prevent it from being deposited on the surface of the pipes.

Mr. Slate observed, that a great quantity of coke dust and ore was carried off by the blast from the conduits of the furnace.

Mr. M'Connell inquired whether the dust could not be removed by drawing the gases through a screen of wire-gauze, so as to filter the air before entering the hot-blast apparatus?—Mr. Blackwell replied, that the passage for the air from the furnace should be as free as possible, and the wire-gauze would cause too much obstruction. In the French works that had been referred to, the air was carried through water to stop all dust and impurities, which appeared to accomplish the object successfully.

Mr. Stephenson asked whether Mr. Blackwell agreed with M. Ebelmen's theory of carbonic acid being first produced, then changed to carbonic oxide, and lastly partly converted to carbonic acid again, higher up in the furnace? He could not understand such a process.—Mr. Blackwell said, he did not consider himself competent to give any opinion on the chemical changes occurring in the furnace: he considered the theory a probable one, especially as it appeared to be fully confirmed by M. Ebelmen's experiments, in which the gases were taken off at different heights of the furnace, and subjected to careful analysis.

Mr. Stephenson said, he could not think that the carbonic oxide took up an atom of oxygen from the oxide of the metal; it was a law of chemical affinity, that the second atom combines with less force than the first. He considered it much more probable that an atom of carbon was taken from the carbonic oxide to unite with the iron; he did not think that the carbonic oxide could de-oxidize the iron, and he could not understand the two reverse processes taking place at the same time in the furnace.

Mr. Blackwell said, that when in the Exhibition, accompanied by M. Le Play (one of the jurors of the Exhibition, and professor of metallurgy, in Paris), and Professor Faraday, he saw some curious specimens called "metallic sponge," which were formed of pieces of iron ore exposed, when heated, to a current of carbonic oxide, or carburetted hydrogen, which de-oxidized them. M. Le Play was acquainted with the process before, but it was new to Professor Faraday, who was much interested with the specimens. He (Mr. B.) had not seen the process of de-oxidization, but was informed that it was effected by both means, either by carbonic oxide or carburetted hydrogen.

SOUTH DEVON GREAT CONSOLS MINING COMPANY.—The neighbourhood of Tavistock is becoming the scene of fresh adventure. Within a short distance of the celebrated Devon Great Consols, and surrounded by mines of high character, another sett, under the name of the South Devon Great Consols, granted by the Duchy for a term of 20 years, at 1-15th dues, has lately been secured. It extends a mile and a half in an east and west, and about a mile in a north and south direction, is bounded north by Wheal Williams, south by Hingston Consols, east by South Wheal Maria, and abuts westward on the boundary between Calstock and Stoke Climsland parishes, and has been found to compass several well-known lodes, whose productive nature have afforded within the past few years highly lucrative results. Amongst several others, we may mention two of the mines to which allusion has already been made, and the main lode of the Bedford United Mines. This unusually attractive adventure will be carried on under the management of gentlemen whose names afford the most conclusive evidence of the *bonâ fide* nature and high standing of the undertaking, and whose experience induces us to look forward to whatever satisfactory results can be possibly obtained from judicious enterprise and efficient inspection. Among the promoters we observe the names of Mr. Alfred Smee, of the Bank of England, and Mr. J. H. Hitchins, of the Devon Great Consols, with those of other gentlemen of standing and influence. A capital of 21,000*l.* is to be immediately raised in shares of 1*l.* each, to be fully paid up on allotment, and if inferences derived from the nature of the locality are to be depended upon, such a sum must assuredly be amply sufficient to the development of the property. It would appear that the feelings of the promoters are not deduced solely from anticipations, whose basis is the great success of the surrounding adventures (although it would, perhaps, be well if half the undertakings in vogue could boast so good an origin), but that these anticipations have become convictions from the unanimous expressions of satisfaction in the reports of persons employed to survey and examine the sett. In this regard every care that precaution could suggest has certainly been taken, as evidenced in the selection of competent engineers and other practical mining agents, a favourable report from one alone not having been considered conclusive evidence. These represent one lode to be the same as that which is, and has been for a length of time, paying large profits to the Bedford United, and describe another as of a very promising nature, pointing out appearances such as are invariably found in connection with the largest deposits of copper ore. From the features of the sett, viewed in conjunction with the surrounding neighbourhood, and taking into consideration that it is in close proximity to, and in the same course of lodes with, a mine which, during the past eight years, has yielded dividends exceeding 300,000*l.* This is an adventure offering to enterprise a fair opportunity for legitimate mining, and promising every satisfactory issue that can be anticipated from reliance on geological principles and acknowledged mineral indications.

MINERAL WEALTH OF ENGLAND AND IRELAND.

Great Britain is the most favoured country in the world for the developement of mineral industry. Fuel, the indispensable agent in the treatment of metalliferous ores, and the most powerful element in the production of motive force, is distributed unequally throughout the three countries of England, Scotland, and Ireland. The coal formation in these three divisions of the British empire occupies rich and widely-spread basins, several of which, especially those of Newcastle-on-Tyne, Scotland, and Wales, being situated near to the sea, which surrounds the whole country, are enabled to export the coal to those places where the metalliferous ores exist in abundance, but where, as in Cornwall, the absence of fuel renders their being worked both difficult and costly. The ores of iron, abundantly distributed in several of the coal basins, add greatly to the value of these. Each one so circumstanced has become the centre of a metalliferous district, where numerous works produce iron at a price so moderate that no nation can compete with this manufacture with any chance of success. The insular position of Great Britain, which allows the coal to be conveyed almost for nothing wherever it is wanted, is equally important in enabling the iron to be conveyed by its ships throughout the world. These highly favourable conditions have given great development to the operations of coal mining and the manufacture of iron, and this has been especially felt since the application of cast-iron for purposes of construction and the formation of the great lines of railroad.

The quantity of cast-iron produced in England is as follows :—

In 1836	*Tons*	1,000,000
1840		1,396,400
1844		1,210,000
1845		1,512,500

In the following years, owing to certain important fiscal alterations, the trade received a great stimulus, and the make rose to—

In 1848	*Tons*	1,998,568
1849		2,000,000
1850		2,250,000

And in 1851 to an amount probably more than double the quantity made in 1845—seven years previously.

The quantity of coal raised in 1840 is not accurately known; but in 1850 it is estimated at 34,750,000 tons. The increase must have accompanied that of the make of iron, of which it is one of the most essential elements.

The average price of coal at the pit mouth in England is estimated at 5*s.* 7*d.*, and that of pig-iron at 48*s.* The produce of these two branches of industry amounts, therefore, to the annual value of upwards of 15,000,000*l.* :—

34,750,000 tons of coal, at 5*s.* 7*d.* per ton	£9,70,050
2,250,000 tons of pig-iron, at 48*s.* per ton	5,400,000
Total	£15,101,050

Of this vast production, about one-half of the iron and one-fourth part of the coal are exported to the colonies, or to foreign countries. These sources of wealth in coal and iron, which are alone sufficient to place a country at the head of mineral industry, are not the only ones possessed by England. Nature, liberal to profusion towards this favoured country, has given it mines of copper, of tin, and of lead, also of great richness. Perhaps some day a formidable competition may arise in the case of copper, by the working of enormous masses of native copper discovered on the shores of Lake Superior; but at present the Cornish mines furnish, as we have already remarked, two-thirds of the whole of the copper consumed throughout the world. With regard to tin, England divides with Saxony and the Indian Archipelago the monopoly of the trade in Europe.

The annual production of copper in Cornwall may be estimated at about 12,000 tons, the value of which amounts to upwards of 800,000*l.* sterling. The quantity of tin ore obtained annually may be estimated at 11,000 tons, the average yield of which is 65 per cent., or about 7000 tons of metal: this, at 90*l.* per ton, would amount to 560,000*l.*

It is often supposed that England, so rich in regard to iron, copper, and tin, is comparatively poor in lead, or, at least, that the lead mines are of secondary importance. This is an error, arising from the fact that the production of lead, instead of being concentrated, like that of copper, in one or two districts, is spread over a great number of mines. Some, like those of Alston Moor, in Cumberland, of Snailbeach, in Shropshire, or of Wanlock, in Dumfriesshire, are indeed well known; but most of the others are comparatively unknown. Their number, notwithstanding, is considerable, owing to the wide extent of palæozoic rocks in Great Britain, and they raise the total of production in this metal to an amount which may, perhaps, place England also at the head of supply in this respect. Spain is at any rate the only country that can come into competition with her.

We were not fully aware of these results when the subject first came before us; but they have been communicated to us by Mr. Robert Hunt, who is well acquainted with the mineral industry of Great Britain. According to his statement, it appears that the production of lead in England is distributed in the following manner among the principal metalliferous districts :—

		Ore.		Lead.
Cornwall and Devonshire	*Tons*	12,328	.....	7,945
Cumberland, Durham, Northumberland, and Westmoreland		29,803	.....	20,850
Derbyshire, Shropshire, and Somersetshire		10,016	.....	6,776
Yorkshire		7,906	.....	5,596
Wales		19,711	.....	13,389
Ireland		2,739	.....	1,653
Scotland		1,421	.....	957
Isle of Man		2,826	.....	1,535
Total		86,750		58,701

In this statement of the value of the lead in England we have retained the account of the quantity of ore raised. The comparison of the two columns establishes the fact, that only 68 per cent. of metal is obtained after the mechanical preparations are completed, this being the average yield of the ores of lead in England; whilst, on the other hand, as much 75 to 80 per cent. is obtained on the Continent. This difference in the yield of the ores is the result of the low price of fuel in England.

The brief account of the mineral wealth of Great Britain, which we have here given previously to making known the results of the Exhibition, is sufficient to prove how great an interest the subject would possess if the statement could be made more complete. We greatly regret on our own account that, for the reasons given in the commencement of this report, so many persons have declined sending contributions to the Crystal Palace. In consequence of this, there are many blanks which prevent our being able to form a satisfactory idea of the immense development of mineral industry in the British islands; and the existence of such blanks renders it impossible to make a systematic classification of the objects exhibited, which would be of great use in the statement we are about to make of the rewards decreed by the jury. This difficulty induces us to describe in succession the several establishments which have obtained medals and honourable mention. In each of these groups we shall combine the objects which offer the closest analogies.

The production of iron in England, which was only 30,000 tons in 1750, suddenly increased to 180,000 tons on the important discovery, by Mr. Cort, of the process of puddling with coal. It is now 2,250,000 tons. This vast production is distributed nearly as follows :—South Wales and Monmouthshire, 700,000 tons; Staffordshire and Shropshire, 600,000 tons; Scotland, 600,000 tons; and the remainder in different proportions among the other coal districts of England.

One of the chief causes of the development of the iron trade in England has been the occurrence of iron ores in layers amongst the coal measures, so that the ore and coal for smelting it are found in the same spot; while not unfrequently the coal measures also contain the refractory clay used in the construction of the smelting furnace, and the limestone needed as a flux occurs at no great distance.—*Great Exhibition Report.*

MANUFACTURE OF GAS.—Messrs. Kirkham, the engineers, have secured a patent for improvements in the manufacture of gas for lighting and heating: the first branch consists in manufacturing gas from water, by decomposing it in contact with incandescent coal in suitably-arranged retorts. The quality of the gas thus produced may be improved by passing it through heated retorts, and then through other retorts containing Cannel coal, undergoing the process of distillation. The second branch of the invention consists in purifying coal-gas by the employment of the sub-chloride or oxichloride of antimony, which material may be obtained by boiling sulphuret of antimony or common antimony ore in muriatic acid, and then washing it. The material may be used either in the wet or the dry state, in the same manner as practised in lime purification.

THE ARDENNES (BELGIUM) MINING COMPANY.—A company has been formed for the purpose of working a sett, extending over 1500 acres, situate on the banks of the River Lessec, in the districts and provinces of the Belgian Luxembourg and Namur. The proposed capital is 30,000*l.*, divided into 30,000 shares, of 1*l.* each, payable on allotment; and, as the company is established under the Belgian law of "commandite," the liability of each holder is limited to the amount of his share. The owner of the property would seem to have every confidence in the ultimate issue of the undertaking, having consented to receive, for a grant in perpetuity, the whole purchase money in paid-up shares—viz.: 10,000 on the formation of the company, and 2000 when the mines shall have yielded 20 per cent. dividend to the shareholders. 5000 of the remaining shares have likewise been reserved for allotment in France and Belgium, so that 13,000 only remain for the promoters and the English public. The ground appears to have been well examined by properly qualified persons, whose reports indicate that a judicious employment of capital may with safety be made, and a highly profitable return be anticipated. Four lodes of copper ore have been opened from 500 to 650 fms. in length, the average produce of which has been shown, on assay, to contain 17 per cent. Six other lodes have also been discovered; which, although showing a somewhat insignificant proportion of silver, are described as containing 77 to 83 per cent. of lead. Large expectations are formed also, likely to arise from the production of sulphate of barytes, an article in daily use amongst various manufacturers in Belgium and France, and which is represented as capable of being supplied from these mines at a price that will afford a good margin for profits to the adventurers. It must be admitted that a company whose operations are carried on in Belgium has manifest advantages in point of the prices of labour and fuel, as compared with our home mining districts, while facilities for transport are likewise advantageous; therefore, looking to the reports of the engineers, to the accounts of the several samples of ore assayed, and having regard to the favourable position of the mine, as closely in communication with England and the large continental manufacturing districts, there appears fair reason to anticipate that the result will prove as beneficial to the shareholders as the promoters anticipate, and that a satisfactory supply of the various metals may be obtainable at fairly remunerative cost.

UNPROTECTED OLD COAL PITS.—In another part of our paper appear acounts of two inquests held last week, on the bodies of children whose death has been caused by falling down unprotected old coal pits. We felt certain, when we undertook to call public attention in a prominent manner to this dreadful evil, that we should insure its abatement. We are happy to state that in several instances in the north of the county, and in this immediate neighbourhood, old pits have been closed in and protected. We understand further that in a short time Mr. Wynne, the inspector of mines for the district, proposes to go through it, with the view of reporting all instances of open and unprotected pits to the Secretary of State. It is probable, therefore, that legal proceedings will be taken, should the Attorney-General be of opinion that indictments can be maintained (and other counsel have given an opinion to that effect), against such pit owners and others who may continue to neglect a duty which common humanity so plainly dictates.—*Wolverhampton Chronicle.*

THE RAILWAYS AND THE CARRIERS.—Meetings of the carrying interest have been held during the last week at Liverpool, Birmingham, Lancaster, and Preston, to consider and concert measures for obtaining a more equitable treatment of carriers by railway in the matter of the transmission of their goods between the metropolis and the north, and with the view of applying to Parliament in the present session for the introduction of protective and controlling clauses into any measure for the amalgamation of the great railway interests.

Original Correspondence.

ON THE NORTHERN MINING DISTRICTS.—No. V.

SIR,—Referring to my former letter, I observe some trifling errors of the printer, which, however, are hardly worth noticing; I shall, therefore, proceed with a further description of the Derwent Mines. The lessees of the Arklegarthdale (more commonly Arkindale) Mines entered upon Beldon Mines, belonging to Mr. Silvertop, and Ramshaw, then belonging to Mr. Ord, now to his great-nephew, the Rev. D. Capper, in 1805; and on the expiration of the Lead Company's lease in 1807, of those belonging to Mr. Skottowe and the trustees of Lord Crewe. Thus, having gained possession of the whole district, the comprehensive plans of the managing partner, Frederick Hall, Esq., could be carried into full effect; the several royalties being so situated as to be in a great measure linked and dependant upon each other for instroke, outstroke, watercourses, reservoirs, roads, and other facilities and accommodation. Of Mr. Hall it is not enough to say that he was far beyond the age in which he lived for scientific and practical knowledge of mines and mining, as well as for his general attainments as a scholar and a gentleman. I was his *elève* in very early youth, and from his instructions I received the first rudiments of geology, mineralogy, scientific and practical mining, and mine surveying; and of him I shall ever retain, so long as Memory holds her seat, the most grateful remembrance of his extreme kindness in my boyhood, and continued friendship in after life. He has long been numbered with the dead; but his memory is still cherished by a numerous body of miners, as one whose liberal disposition and attention to the welfare of every man under his charge, showed that he was truly and emphatically the miners' friend. He originated the *Miners' Fund*—at first confined to his own districts, but has since spread over, and been highly beneficial to many other districts. He devised and erected the first crushing-mills, to supersede the old mode of breaking down ores for cleansing by hand-labour, called buckering. He substituted the square tub and brake-sieve for the old woman's round tub and hand-sieve. He improved the ancient mode of smelting, and substituted horizontal chimnies for upright stalks, to save fume containing much lead from escaping into the air, that was otherwise not only wasted, but spread destruction around amongst the herbage of the neighbourhood: by his improvements was added nearly 1-12th to the former produce of lead. I shall have to speak of him again when I come to describe the Arkindale Mines, where his improvements were first begun, which excited much attention, and even attracted the notice of royalty. The Prince of Wales and the Duke of Clarence being on a visit to Lord Dundas, at Ask Hall, near Richmond, determined upon honouring Mr. Hall by inspecting them. The Duke of Clarence, accompanied by a large party, accordingly went into the mines about 300 fathoms, by an adit level; saw and wrought himself some lead ore from a rich vein recently cut. He afterwards inspected the machinery, inclined planes, crushing-mills, washing floors and apparatus; and the splendid roomy and airy smelting-mill, with its large horizontal chimnies, fume-houses, roasting-houses, &c., and, after partaking of an elegant luncheon with Mrs. Hall at Eskelith House, departed, highly delighted with his visit. The Prince of Wales did not go, being detained at Ask Hall by a slight indisposition. Mr. and Mrs. Hall had afterwards the honour of an invitation to meet him at Ask Hall, and accompanied him and the Duke from thence to inspect the great Iron works at Low Moor, near Bradford.

On commencing work at the Derwent Mines, the first object, after opening the engine-shafts, so far as they had been sunk, and some of the old workings, was to consider the most practical and economical mode of proceeding, having so large a field to work upon. It was soon discovered that, though the mines had been wrought for many hundred of years, the great limestone had not been reached in any part of the district; known in most of the other northern districts as the most prolific stratum for lead ore, and from which, it is said, that in Alston Moor, Weardale, Teesdale, and Allendale, more lead has been raised than from all the other strata put together. In Derwent, the hipple sill, high grit sill, low grit sill, and crag sill, had hitherto been the strata most productive. The former lessees, having mistaken the little limestone, about 2 fms. thick, for the great limestone nearly 10 fms., and about 18 fms. deeper, had left a wide extent of ground below their old workings unexplored, Mr. Hall, therefore, determined upon attempting to reach the great limestone with the greatest dispatch, and at such points as would afford the best accommodation for after proceedings, reduction of produce, &c. He, therefore, erected a powerful steam-engine, made by Bolton and Watt, on Mr. Silvertop's royalty at Beldon; sunk the pumping-shaft and a drawing-shaft, each 60 fms. deep, through and 4 fms. deeper than the great limestone, laying open several productive veins, and some quick strings. At Old Shildon he erected another of Bolton and Watt's engines, more powerful than the former, widened and repaired the pumping-shaft, which had been sunk by the former lessees 57 fms., and continued it, with two drawing shafts, 102 fms. deep, and through the great limestone. A winding-engine was erected for drawing work up the two drawing-shafts. The *old man* had sunk the engine-shaft 57 fms., and used three water-wheels, below each other, for pumping; sunk a sump 17 fms. deeper, to the top of the little limestone, in which he had placed three stands of hand-pumps, that required 72 men to work them, but could not keep down the water; cross-cuts and drifts were made in various levels above and under the great limestone, by which several veins were laid open, and the mines of Old Shildon, New Shildon, Fell-groove, and Standalone, could be unwatered and wrought; besides a number of veins lying to the south of Old Shildon, from whence large quantities of ore had been raised in the upper stata by the Lead Company and former lessees. Stables were cut out in the limestone, and horses kept underground to haul the work from distant points to the foot of the drawing-shafts.

At Ramshaw, in Mr. Ord's royalty, a steam-engine of 30-horse-power was put up on the boundary between his property and Mr. Skottowe's, at Jeffries' Rake, to pump water from both mines. The *old man* had sunk a shaft 28 fms., by the aid of a water-wheel, and a sump 9 fms. deeper, from which the water was pumped by sliding rods; this shaft, and also a drawing-shaft, was continued down to the depth in all of 86 fms., being 5½ fms. below the bottom of the great limestone, and about 4 ft. into another limestone; cross-cuts and drifts were made, and the veins laid open: here, also, stables were cut out in the limestone, and horses kept underground to haul the work along drifts to the foot of the drawing-shaft. Mr. Hall projected driving a drift or level under the great limestone from Ramshaw to Whiteheaps, about 300 fms., that would have laid dry a large extent of ore ground in two most powerful veins, called Whiteheaps' White Vein and Whiteheaps' Red Vein, with many others of a smaller description; and in the mean time he erected a water pressure-engine, and sunk the shaft at Whiteheaps into the crag sill, opening by that means many new ore workings. At Smithy Cleugh a small steam-engine was put up, and a large shaft begun, which was not, however, sunk deeper than the coal sills before it was suspended, and remains so. Nearly all this work was done previously to the commencement of 1812, when having reached the great limestone at three points, and made some progress in two other places, several miles distant from each other; laid open much ore ground, and a number of veins sufficient to employ many thousand miners, the great outlay consequent upon such extensive operations had far outstretched the means of the proprietors, and they entered into arrangements with some gentlemen of wealth and influence in London, by whose assistance they were greatly relieved. A new company was formed, a considerable addition made to the capital and proprietary, and the works in progress went forward. As my further descriptions will still extend to some length, I must defer what follows for another letter. JOHN DOLPHIN.

Hunter House, Jan. 31.

ACCIDENTS IN COAL MINES.

SIR,—Having, for some years, been a subscriber to your very valuable Journal, I shall esteem it a favour if you will give the following observations a place in its columns:—In the year 1842 the South Shields' Committee, was formed to investigate accidents in coal mines, was at immense pains in searching for the causes of such accidents, and in suggesting such means as their superior judgment deemed necessary, as a preventive of the loss of so many invaluable lives. That committee, in addition to the safety-lamp, urges the use of several other scientific instruments as valuable indicators of the state of mines, which, if used and correctly observed, would give such clear and unerring intimation of approaching danger from explosive gases, that nothing, except the most criminal neglect, could endanger life, or admit of such fearful catastrophes. Notwithstanding the use of the instruments suggested—viz., the anemometer, eudiometer, thermometer, and barometer—still as direful explosions as ever are continually occurring, excepting those of Felling in 1812, and of Wall's-End in 1835—the former being attended by the loss of 92, and the latter of 102 lives; thereby causing widows and orphans to bewail their irreparable loss, and the proprietors of coal mines to lament the loss of valuable servants and of property. These destructive explosions clearly indicate something radically wrong in the internal arrangement of the mines.

Passing by those numerous explosions between 1835 and 1849 in every mining district in England, Scotland, and Wales, whereby thousands of wives became widows, and of children fatherless, but which at length aroused the voice of humanity, in June and July, 1849, on behalf of suffering thousands, and which, aided by your valuable Journal, was the means of inducing our British Legislature to institute a rigid inquiry into the cause of so great an amount of suffering in our coal districts. A committee was appointed; and, in my opinion, it was capable of performing the important duties imposed upon it. It was constituted of some of the most eminent, learned, and scientific men of the day; and it suggested from 6000 to 7000 questions relative to coal mining operations, connected with every known means of ventilation, artificial and mechanical.

Men of much experience, and of extensive scientific attainments, unanimously declared that, to render safe and healthy all the cavities or openings of a coal mine, there must be a sufficient quantity of air brought through a given area; and whether the greatest quantity of air is brought through a given area by means of furnace ventilation or the steam-jet, I am not about to discuss, as that subject, according to your Journal, has been properly attended to in the north. I, as a coal miner, was not surprised to learn that the verdict has been given in favour of furnace ventilation.

The great question why explosions are so frequently occurring in well-regulated mines, suggests to me that there must be something radically wrong in the management. Dr. Fife, in his lecture before the Literary and Philosophical Society of Newcastle, urges as a remedy the necessity of a reform in coroners' inquests; and that all inspectors should be examined as to their ability, and licensed by diploma, as medical men are. What good such reform could do, I must confess I cannot see. Instead of urging reform in jury inquests, I would urge a reform on the management of the mines, as I do think the present mode of management is admissible of very great improvement.

In the first place, I would suggest that every colliery be properly laid out, according to circumstances, then divided into districts—say, four in number, or more, if required. Let each district be again divided into separate stalls or workings; let each stall or working be properly numbered. This being done, fix a barometer in the most eligible place in the mine. Let a book be provided; call it the pit ledger, if you like. In it let the workings be systematically arranged; first the date or hour—say, six a.m. and six p.m. Next note the state of the barometer at those hours; then No. 1 district, with its stalls, correctly numbered. So proceed with each district. Let there be no workings but what are set down in their proper place in the ledger; then let men be selected who are well acquainted with the coal strata in the locality where employed, and with the most efficient modes of ventilation. Let them be men of intelligence and sober habits, and in number according to the extent of the mine, but in no case less than two by day and two by night. Let these men, when on duty, see that the air is properly applied to each district and stall, in sufficient quantity to keep the men in perfect safety, and that all doors, crossings, airways, &c., are kept right, and that the furnace is in a proper state. Let the foreman, before coming to bank, note down the exact state of the whole mine; likewise note the least change in the barometer. On coming to bank, let the men have access to the pit ledger; set down in its proper place the state and condition of every part of the workings, ready for the inspection of the under inspector, or any other official character. By such means there would be an efficient number of officials always in the mine, so that no district or stall could be left without ventilation, in consequence of a principal door being left open all night; neither could any part of the mine fill with inflammable matter; so that an explosion would be rendered an utter impossibility.

Butterley Park, Feb. 8. JOHN SMITH, Coal Miner.

THE ACCIDENT AT SEGHILL COLLIERY.

SIR,—An inquest was held recently at Seghill Colliery on the body of a boy, who was killed by an explosion of fire-damp in one of the districts of that pit. The case attracted deep interest among the miners, as the only person blameable was the overman—he being the only person, besides the boy, in the workings where the explosion occurred, and from whom more than the usual caution was expected. It appears that the district in question had been short of work some time, and the overman and boy were sent to take stock of the materials, &c.

According to the statement of the head viewer at the inquest, a printed form of regulations is given to all the workmen, and by which it is forbidden that pillar, or old workings, should be visited except with the safety-lamp. The overman in this case took a lamp, but declined its assistance when a certain point had been arrived at, and proceeded further with a naked light—thus breaking one of the regulations, and thereby causing the loss of the boy's life, whom he incautiously allowed to be in advance of himself by a chain's length, or about 20 yards.

Mr. Carr, the viewer, further stated that the owners had determined to allow the said overman to retain his situation—they being satisfied of his ability for the same, &c.

Sir, I have read the regulations referred to, and find that certain fines are imposed upon the common workmen for any breach of the said regulations, or he may be taken before a magistrate and sent to prison; but when the regulation treats of the duties of the officers, there is not a word about fines or imprisonment; on the contrary, the case in point justifies the dereliction of duty, by allowing the overman to retain his situation. Why this disparity, if justice was intended?

The overman stated, that finding the air passage free from gas he put the safety-lamp aside, and took the lighted candle. Why, the idiot ought to have known that accumulations of gas, if found at all, are at the face of the old workings; hence he ought to have explored the whole of the workings before dispensing with the lamp, and then he would have discovered the danger, and prevented the loss of the boy's life. Happily the charge commonly applied to the colliers, when explosions and so forth take place—viz., that they are regardless of their own safety—does apply in this case to the officer in charge; yet witness the result, every effort is made to screen his want of caution, as will be seen by reading the evidence at the inquest.

The inspector reported that 4000 cubic feet of air was sufficient to ventilate the district; but, if so, whence the accumulation of gas, which had evidently been large? The probability is that little more than half that quantity had been passing into the district previous to the explosion, but as it did not transpire whether the inspector had ever examined the pit before, nothing can be ascertained as to the quantity of air supplied to this district.

Here is additional proof of the necessity of more inspectors, for had there been periodical visits this dangerous accumulation of gas would have been discovered in time. I hope the time is near when a large addition to the body of inspectors will be made.—A COLLIER: *Feb.* 9.

MEDICAL MEN AND COLLIERY VIEWERS.

SIR,—I perceive Dr. Fife has been advancing, in a lecture, the same views which he offered some time since in your pages—that colliery viewers ought to have *public* certificates of their competency. He never replied to my inquiry, as to *who* were to grant these certificates, which is very important; because, as doctors grant certificates for doctors; so, by parity of reasoning, viewers ought to grant certificates for viewers; which is exactly the condition of things as they now exist. Which way, then, is to be the change? But, as I think the worthy Doctor's proposal is based upon a fallacy, it is well worth a few remarks to point out the erroneous premises. To enforce his view of present neglects, he urged that he could not be permitted even to take charge of a *pauper* without a double public certificate. The intended inference being obviously, that working colliers were worse taken care of than paupers; in fact, I presume, double worse than nothing. This is a bad style of argument; it is both *ad captandum et ad agitatandum*. It was thus to inflame their feelings that the voters at Sixmile Bridge were designated convicts; and it doubtless must be equally telling on the colliers to inform them they are worse off than paupers. But, however full of passion, the argument is devoid of reason. Employments are properly divided into two distinct classes, *public* and *private*: doctors belong to the first class. They are not men employed at a salary by a single master, devoting their time to the service of one only, who has the opportunity and the knowledge to judge of his servant's competence. A doctor is the servant of the public; he brings a character from no one individual; he sets up in a locality where he knows no one, and where no one, perhaps, has ever seen him before. He offers himself to the public for their relief in the occasional necessities of illness, and it becomes absolutely necessary that the public should have a public guarantee that the stranger is not an ignorant pretender, but has passed through some certain amount of formal education. The case is entirely different in private employments. In these a man derives his warrant from the private recommendations of individuals who know him, or who he has previously served. Clerks, furnace managers, colliery viewers, are all selected or promoted in this way by the recommendation of those private employers who are the best judges of competence. If the guarantee of public boards is to be introduced upon hand-writings and anthracite, blowing engines, minerals and coals, it ought also to be extended downwards to the competence of workmen to handle the pick, to close the ventilation doors, to manage the Davy, and even finish by a public institution, with a board, to give grooms, footmen, and cooks, their proper certificates, for all of these have life and health, as well as property, depending on their conduct. The neglect of this division of employments originates the Doctor's fallacy. A public warrant of a degree of competence is indispensable to the medical practitioner, without which persons utterly ignorant might tamper with lives, not knowing a vein from an artery; but there is not the slightest chance of a man who had never seen a coal-pit, either asking or obtaining a place as colliery viewer. We are perfectly aware that the medical certificate is in a great degree only formal, and confers no real ability, that persons who have received it may blunder through life with a perfect minimum of real skill, doing quite as much harm as good; whilst the man of talent, who least needed such formal sanction, finds his way to success and extensive practice. No one will more readily grant this fact than Dr. Fife himself. My own opinion is, that the sort of amphibious metropolitan colliery board, which seems to be contemplated, would, and unavoidably must, fix the formal qualification for certificates upon points of the very slenderest practical utility. When forms were substituted for realities, the board would find it hard to refuse a man his living on points of form and theory, when they knew nothing more themselves; the sieve would, therefore, be constructed with convenient meshes, and the country inundated with certificated persons, who would have to learn to obey, and every other useful qualification, after having obtained their authority to command.

The issue of the experiments upon the steam-jet rather adds to than diminishes their importance. In the meanwhile, I would point attention to the facts, that the late explosion at Elsecar, though from fortunate circumstances unattended with a large loss of life, was the most violent ever known; that that violence was caused by the very large quantity of air brought in for dilution, according to the most approved scientific principles; and that the explosion immediately originated from the practice which the present arrangements necessitate, of interspersing and crossing the channels for the returns with the channels for the pure air. I leave it to the intelligent and the unprejudiced to draw the inference, and to estimate the value of such plans as Mr. Gibbons's, which annihilate all these evils at once.—DAVID MUSHET: *Feb.* 3.

MOIST BLAST—STEAM-BALLOONS.

SIR,—A correspondent, in the dismal weather of last year's close, requested my advice for desiccating the moisture of his hot blast. The only suggestion which occurred to me was to adopt a happy combination of "Masters's ice in one minute," and Capt. Ericsson's air strainers. It is obvious that, if ingeniously carried out, the moisture would be deposited as ice upon the strainer; and the air entering the blast apparatus at a temperature of 30°, instead of 45°, 60°, or upwards, a considerable per centage would be added to the capacity of the blowing cylinder. But the rain abated; and as I thought it possible the ironmasters might not yet be prepared to adopt such a refined piece of ingenuity, I decided it was hardly worth while to communicate this effort of ingenuity; but now I have every encouragement. I perceive, in your last Number, it has been proposed to adopt these strainers to aerial navigation and steam-balloons. I think the wire sponge displays great ingenuity; and I should like to see it made available for some useful purpose. The Glasgow *Practical Mechanic* does not appear, however, to have exactly mastered the details of its action; still it is something to see the surface condensation of steam advocated even for impracticable objects; and even the voyage of the *Ericsson*, when she arrives, will tend to promote this important end. The completion of an engine with even such a wasteful expenditure of space for the working power, shows the sense which exists of the imperfection of the present marine engines, and the need for improvement; and in doing this, prepares the public mind for the adoption of steam-engines which save more than the 80 per cent. of coal, which is the recommendation of the caloric engine, and at the same time add the invaluable economy of reducing the machinery ten times in weight and bulk, instead of increasing these obstacles in that proportion. Whatever its ultimate value (and this practical men can easily calculate), there is great merit in constructing, after so many failures, an actual working hot-air engine; and above all is credit due to the American capitalists who have supplied the means for the experiment. In that country, at least, it appears that practical men of reputation do not attempt to swamp rising genius, and combine with capitalists of wealth and station to rob the inventor of his labours. Had the ladies of America applied to me, I could have furnished some painful details of this species of cruel oppression, which is not included in the abuses of the old country catalogued in their "reply."

Feb. 3. DAVID MUSHET.

STEAM COMMUNICATION WITH AUSTRALIA—CRADDOCK'S ENGINES.

SIR,—I have considerable hopes that a company will soon be formed for supplying the nation with these inestimable inventions on a basis worthy of the greatness of the object. Persons who have the spirit to undertake such a public benefaction, against the discountenance of those who, knowing their value, have been seeking by underhand means to use them at the inventor's cost, and appropriate to themselves the property of another, deserve encouragement; for, hard though it is to say, there exists but too general a desire to swim with the stream. Those who have not risen are to be sunk lower. The helping hand to floating inventors is a very rare gift, although they equally deserve assistance as a burned house or a broken leg. These are liberally aided by benevolence; yet the man who can make an ear of corn grow where none grew before, or cover the ocean with a thousand ships where only one now sails, is less thought of: in fact, when a man of talent hath not money, it then becomes justifiable to take from him even that which he hath. Those, therefore, who are so independent as to set their face against this fashion, and come out of it, do deserve encouragement; and I think I can afford them a little. The reputation of Mr. Evan Hopkins as a practical engineer is in no slight estimation with those who have had the advantage of testing it; and I know what weight his opinion carries. My own acquaintance with him has been, I am sorry to say, of a very late date, but I have endeavoured to make the most of the time, short as it has been; and I will venture to say, without presumption or offence to older friends, that I think I know his *mind* as intimately as any of them. I would almost undertake to state (having data) what would be his opinion upon any subject beforehand; and I will go so far as to say that I have not the least doubt that, on an examination of Mr. Craddock's inventions, he would endorse every line I have written, or may write, on their value. I am not quoting him behind his back as the jobbers do, with all the important points of his evidence left out. What I say, I say on my own responsibility, and on that alone. I know his capability of discerning white from black, and his incapability of mistaking them under any fashionable confusion of ideas. His sense is equal to his honour, and his honour to his sense. I will not, therefore, quote him, nor pretend to speak for him. He has *not* seen Mr. Craddock's inventions; and my opinion of what he will say when he has must be taken only for what it is worth. He promised me to read and master the principles, and when he had done that to visit the works, and this as soon as he could find time from innumerable engagements accumulated during the publication of the enlarged edition of his own volume; but just when I hoped the event, the fortunate directors of the Port Philip Gold Company succeeded in their act of transportation; and so for the present the matter rests. But as much as this I may say, the result of several conversations with Mr. Hopkins upon these inventions, which *I had* seen, was the immediately commencing to write as I have done upon their value. Let the wise understand, and I will venture to say a little more. If the attempt is continued to deprive our colonies of *proper* steam communication for the mere "protection" of a few private individuals at home, and we and they are now to be told that all must wait until "for many a league old ocean smiles" with Mr. Brunel's 8000 ton steamers, more impossible events may occur than the formation of *economical* steam navigation companies in Australia, to confer on themselves the benefits of which home monopoly is so resolute in depriving them. There are those who persevere in attributing our present prosperity solely to Acts of Parliament, and not at all to the free trade in gold, so lately and so wonderfully added to the stock of commerce; but even then there remains one branch of free trade yet unopened to "unrestricted competition;" and that is free trade in steam-engines. If the present "protective duty" levied by the makers on the public is persevered in, Australian gold may find a way of stopping its sources, and making a downfall at the same time of both the protection and the protected. When some morning the news reaches Lloyd's that a French squadron, with 20,000 troops on board, is steaming down the coast of Africa, both colonies and mother country may see reason to curse the apathy or corruption, or whatever it may be, of Exhibition Commissioners, or whoever they may be, who have kept out of our war navy engines which, compared with the present, are but toys in weight and current cost, but leviathans in power and speed. Our only or our best chance then will be that the rifles and the gold-diggers may *fraternise*—a new and improved method of dismounting Mamelukes and annihilating Pretorian guards.—*Feb.* 7. DAVID MUSHET.

COMPARATIVE ADVANTAGES OF THE INVENTIONS OF CRADDOCK AND ERICSSON.

SIR,—As Ericsson's hot-air engines are exciting a large degree of interest in the quarter where inventions of a useful nature for increasing speed on the sea should be appreciated, and Mr. David Mushet has contended, and apparently not without great reason, for Mr. Craddock's inventions in the steam-engine as of prodigious benefit for the world—would it not be well for him, as he is ever willing to advocate this principle, to show the comparative advantages of the system of Craddock over Ericsson. In the *Illustrated London News*, a vessel fitted up with the Ericsson engine has been recently represented, and favourably spoken of by the editor.—Why cannot Craddock's be shown to the public, and be descanted upon? Is not the *Illustrated London News* a paper of information? It would find, if Craddock be correct in the engine, information to an immense extent, and its adoption into its pages a means of increasing its own reputation to the value of the invention represented. The honour of having the means of greatly helping the public to know and value the invention cannot be absent from the views of so well-conducted a paper. The novelty in the principle of the hot-air engine, besides informing, would interest the readers of that paper; but the improved principle in the steam-engine would astonish an age, and save money. Mr. Mushet, not long since, wrote relative to the advantages between the two systems, but a point cannot be too often enforced, at suitable times especially, as this, when Ericsson's engine is spoken of by a public paper of wide circulation and great importance. John Bull, too, requires repetition, till, being sick, he faints, when no longer able to resist, as is his wont, from a little peculiarity, of his receiving what is for his good, others take for him the opportunity of doing what is necessary; and John, waking up after a deep Morpheian draught, comes to his senses, rises on his huge legs, rubbing his eyes the while, as though conscious of some unusual liberty taken with him, and somewhat overcome by the change for the better which he feels, he thanks his nurses with all the heartiness of his nature for their kind offices.

Bideford, Feb. 7. THE RIGHT THE BEST FOR JOHN BULL.

THE COPPER TRADE.

SIR,—Having been requested by some parties at Birmingham and Liverpool to continue my statement of amended averages of copper ore sales, I send you—

13th January, 1853.—Quoted, ore, 3262 tons; amount, 24,575*l.*; copper, 220 tons 7 cwts.; average produce, 6¾; standard, 152*l.* 5*s.*: it should be—Ore, 3262 tons; amount, 24,575*l.*; copper, 253 tons 7 cwts.; average produce, 7¾; standard, 114*l.* 3*s.*

Jan. 20th—Ore, 3411 tons; amount, 29,753*l.*15*s.*; copper, 256 tons 19 cwts.; average produce, 7½; standard, 152*l.* 6*s.*: it should be—Ore, 3411 tons; amount, 29,753*l.* 15*s.*; copper, 295 tons 11 cwts.; average produce, 8⅝; standard, 116*l.* 14*s.*

Jan. 27—Ore, 3192 tons; amount, 21,265*l.* 17*s.*; copper, 182 tons 8 cwts.; average produce, 5¾; standard, 164*l.* 14*s.*: it should be—Ore, 3192 tons; amount, 21,265*l.* 17*s.* copper, 209 tons 14 cwts.; average produce, 6½; standard, 120*l.* 12*s.*

Gray's Inn-square, Feb. 3. THOMAS IRVING HILL.

THE COPPER TRADE.

SIR,—The inferiority of the quality of the copper complained of by "A. B." (Birmingham), may arise from several causes—by the presence of a minute portion of carbon from the refinery; by the arrangement which the particles of copper assume on cooling; or from substances in the ore alloying the metal. The two first I think to be of rare occurrence; the second, perhaps, never occurring, as the heat and treatment are uniform; I think we must look to the last for the cause of it. We know the ductility of gold, the most malleable of metals, is destroyed by a minute portion of lead; and to the effect of arsenic or iron, probably to both, is due the inferiority complained of—in a word, I entertain myself no doubt about it, still render submission. If "A. B." who is a large consumer, and, of course, has the regular Ticketing Papers, will forward them to me, I will mark off against each mine the peculiar character of its ores, when he can judge by the purchaser of them who is likely to have the best copper. This will be something like a guide for him; by no means a certain one, yet better than none at all.—THOMAS IRVING HILL: *Gray's Inn-square, Feb.* 8.

THE IMPROVED SYPHON.

SIR,—In your Journal of February 5th I observe a letter, headed "The Improved Syphon," and signed "An Engineer." The signature drew my attention to his remarks, which surprised me very much, as I had noticed the description of the improved syphon in your Journal of the previous week, and concluded that it was such a ridiculous absurdity, that we should neither see or hear anything more of it. The letter to which I allude surely emanates from a civil engineer, as a practical one must possess some engineering skill; for I am quite sure every practical engineer knows that it requires the same power to raise 30 feet of water below a piston or bucket as it does above it, and more nicety in the fitting of the piston, or bucket, and clack. "An Engineer" says, "I suppose that a pipe 13 inches diameter, and 300 feet high, would require 150-horse power to work it; whereas, by raising the water in this manner, the frame and pistons may be raised by a power not exceeding four horses." Now, I suppose that a 150-horse engine would raise 12,375 pounds of water 300 feet high, thus allowing 25 per cent. for friction of water and machinery; and this applied to a good turbine would give a result of 75 per cent., equal to 83-horse power, deducting 4-horse power for the working of the frame and pistons of the improved syphon, will leave a result of 79-horse power. A very nice margin with the improved syphon. They could turn all the machinery in Manchester, and I shall lose my berth.

Broughton, Feb. 7. STOKER.

THE ADVANTAGES OF ORGANIZATION.

CONSIDERATIONS ON PRIVATE AND ASSOCIATED ENTERPRISES, IN RELATION WITH EACH OTHER, AND WITH THE NECESSITIES OF THE PROGRESS OF SOCIETY.

SIR,—Individuals, as such, can but perform individual labour: their operations are comparatively confined, and the development of many great enterprises is entirely unsuited to their powers; but organization can do more, and has shown that it can prosecute to advantage enterprises of a more stupendous nature; and though, among the positions which individuals can command, some of them are constituted the proprietors of important businesses, yet there are many enterprises in connexion with the progressive state of society for which they are comparatively unadapted, and which are not only pressingly called for, but also contain within them, hitherto unknown, invaluable and innumerable germs of wealth; for in connexion with the demands of society there are two great and distinct classes or modes of action—the one necessarily adapting itself to present established and known occupations, the other furnishing the stimulus requisite in the projection and development of new and hitherto unknown ones; and which is, almost alone, especially and peculiarly the way in which they may be conducted to an advantageous issue. Amongst the works or enterprises most adapted to the powers of organization, are railways, canals, mines, waterworks, gasworks, and the like, all of which are especially adapted to such process, and by its aid enabled so generally to work to advantage. Besides them, organization may be successfully applied to many other enterprises, which under its influence may be established, and afterwards not only diffuse their utility to mankind, but also preserve a sound state of health and vitality in their workings, both of which are, in many respects, unattainable by individuals. This is, of course, in the general sense: individuals may indeed succeed, in a considerable degree, in obtaining immense wealth, besides conferring by the exertion which produced it almost incalculable advantages to society; but such is not the general tone; while organization may seize hold of such enterprises that, though they savour of real ultimate success yet are so stupendously arrayed in themselves by their constituent circumstances, as to form barriers that individuals may not dare, for a moment, to seriously resolve upon encountering. The advantages of organization to society are, therefore, incalculable, both to the immediate promoters and to those who have no direct interest in them, but who receive more or less important indirect ones; as witness the effect to both parties by a slight retrograde view of the operating benefits and influences connected with and springing from railways, canals, mines, public works, and the like. Besides such enterprises, many others, hitherto unattempted even by organization, and which comprehend a wider besides previously unknown sphere, may be engaged in by its aid; and it is impossible easily to determine where the line should be drawn between individuals and organized companies; but this much is certain, that it may yet be indulged in advantageously to a great extent, and may reasonably include in its operations many enterprises of a comparatively novel character. When entered into with due caution, without prejudice, with a sufficient probability of a good source or object, and a clear course to pursue that object, then it is policy to support such organization or company with vigour, and with a determined and well-decided resolution. One-sided opinions are too often taken, whether in favour of or opposition to projected enterprises; and, in consequence, many worthless projects have been brought into existence, while, on the other hand, many valuable ones have been totally disabled. A moderate exercise of free unprejudiced thought is sufficient to enable good general views to be taken of the ultimate value of projected enterprises. Thus, in railways it may be ascertained at once, in a considerable degree, as to what amount of traffic may be realised, and what the expenses of working the line may be, when the engineering and other various circumstances or positions are considered. So with canals, also gas, water, and other companies, which may in a general sense be calculated to a considerable degree, when the cost of producing the article, and the likelihood of a certain demand for it, at such a price as to be remunerative, are cautiously weighed over. Mines may also be ascertained to a small extent as to what is their likelihood; but still not so easily as some other kinds of stock, yet when a really advantageous position is secured, may increase in value to hundreds of times their first cost, in a comparatively short time.

Thus, in considering the likelihood of a project, its general tendencies may in a tolerable degree, in most instances, be easily arrived at, and new projects may from time to time be looked for—many of which will amply repay cautious, but unprejudiced, considerations.

Among the prospects at present opening to view, and presenting fields of likely progress for organization, are the recent gold discoveries of California and Australia, which consist of numerous large tracts of land, suitable for profitable mining on a large scale. As yet it is unknown as to what their development will actually realise; but their general tendencies, coupled with the confirmations brought out by the experience of the few companies which have been enabled to commence operations, justify the expectations of immense profits resulting, in the general sense, to all companies established on a straightforward basis, and gives the view of the opening of new investments of such a *bona fide* character as probably will be difficult to find a parallel.—*Jan.* 25. JACOBUS.

ON MINING LAWS AND CUSTOMS.

SIR,—This subject having from necessity engaged my attention for some time past, I am inclined to agree with Mr. Seymour Smith, and say that there are no mining laws, although Collier's *Law of Mines* would indicate, by the title, to the contrary. It is true that common law and equity have been applied in a variety of cases, yet it appears to me that "custom" alone is to be ascertained and relied on. The vast importance of mineral wealth ought by this time to have attracted the attention of the Legislature; certainly the necessity of a recognised code for the regulation of mining companies is becoming more and more apparent to our equity judges; is it, therefore, not surprising to find few legal men possessing any knowledge upon the subject, further than that "there are some laws called Stannary Laws, and some book called a Cost-book or system?" this was a reply I received but recently from a legal friend in answer to my inquiry for information as to any law applicable to mining in Wales. The objections of your correspondent, "K. Q. X. Gnome," to the deceptive prospectus so frequently brought before the public are well founded; but every company or association must be carried on and bound by "rules and regulations," and these, instead of being the same in all mining companies, unfortunately, vary exceedingly. It appears to me that three points are essential, viz.:—1st. That men of integrity and responsibility should form the committee; adventurers should always satisfy themselves on this point before they pay their money.—2d. Effectual limitation of the liability of passive adventurers.—3d. An easy mode of raising additional capital, when really required, without injustice to poor adventurers. And I beg to submit for the opinions of your readers the following rules and regulations, which I have drawn up to accomplish the latter points in a company recently advertised in your Journal:

RULES AND REGULATIONS.

1. That 1*l.* per part, or share, shall be subscribed.
2. That certificates shall be issued, numbered respectively from 1 to 1000, every certificate being for 10 parts or shares.
3. That the said certificates shall entitle the holder thereof to be registered in the Cost-book of the company, but that no person shall be so registered except upon his or her written request to the purser of the company for the time being.
4. That no notice of sale, transfer, or other disposal of shares in the company, shall be necessary, except in the case of a registered shareholder.
5. That any registered shareholder selling, transferring, or otherwise disposing of his or her shares in the company, shall give notice thereof, in writing, to the purser of the company, setting forth the numbers of the certificates so parted with; and thereupon the name of such shareholder shall be erased from the register, and no further proceeding shall be necessary to make such transfer effectual.
6. That all dividends, payable on the shares of the company, shall be payable to the holders of the certificates for the time being.
7. That the affairs of the company shall be conducted by a Committee of Management, to consist of not less than five registered shareholders.
8. That each member of the Committee of Management shall, at the time of his election, and during his continuance in office, hold at least 100 shares in the company, and shall be registered in the Cost-book in respect thereof.
9. That the Committee of Management shall have power to appoint or dismiss all officers and servants, to fix their remuneration or salary, and to do all acts necessary for the furtherance of the objects of the company, in conformity with these rules and regulations, and with the Cost-book System.
10. That the accounts of the company for the current expenses of the quarry, &c., shall be made up to the last day in the month prior to every meeting of shareholders, and shall be entered in the Cost-book.
11. That the Cost-book shall be kept by the purser of the company, and be open to the inspection and examination of the shareholders at every meeting.
12. That all lands, tenements, &c., which shall be purchased, leased, or otherwise held for the purposes of the company, shall be conveyed to, and held on behalf of, the company by the purser of the company for the time being.
13. That meetings of shareholders shall be held at the offices of the company on the second Wednesday in the months of January, April, July, and October in every year; and that the business of the meeting shall commence at Twelve o'clock at noon precisely.
14. That every shareholder shall be entitled to be present at every meeting, upon production of the certificate of his or her shares, and shall be entitled to one vote in respect of every certificate produced.
15. That, at any meeting of shareholders, all questions shall be decided by a simple majority of votes—the chairman of the meeting to have a casting vote in addition to his own vote.
16. That it shall be competent for the shareholders at any meeting to appoint, confirm in, or remove from office, any member of the Committee of Management, to receive the accounts, balance-sheets, and reports, and, generally, to discuss and determine all questions, matters, and things relating to the affairs of the company.
17. That all notices to shareholders, relative to the affairs of the company, shall be by advertisement in the *Times*, *Daily News*, and also in the *Mining Journal*.
18. That every shareholder, except the members of the Committee of Management for the time being, shall be at liberty to determine his or her responsibility (if any) or interest in the affairs of this company upon giving notice in writing to the purser, and depositing with him the certificates of the shares held by him or her, and signing a relinquishment of all claims or demands on the company in respect thereof.
19. That no call shall at any time be made upon the shareholders; but in the event of further capital being necessary for the purposes of the company, the amount required shall be raised by an issue of new shares, in such manner as may be determined by the shareholders at a meeting specially convened for that purpose.
20. That these "rules and regulations" shall be printed on the back of each certificate.

It will be observed that I have made a distinction between active and passive shareholders, the registration of the latter being unnecessary. I insist on the registration of the directors, or members of the committee of management, by Rule 8, for this reason,—by the immediate payment of the amount of the shares, a fund is created for these gentlemen to deal with, and by being registered they become known and responsible to creditors, if any debts are improperly contracted beyond the extent of the subscribed capital; and I think no directors ought to object to be responsible for their own acts.

The possibility of an adventure requiring a greater outlay than was originally anticipated is provided for by Rule 19. It is a great hardship upon adventurers to forfeit their shares, and the system, I believe, only exists from respect to its antiquity,—its injustice no one can deny. Let me put a case: A, lured by a glowing prospectus, is willing to risk 50*l.*; this he pays, and in course of time, instead of a dividend, hears of a call; this he pays, but upon its being repeated, becomes unwilling, or unable, to risk more money, and has his shares forfeited accordingly; with further outlay, probably, the mine pays, and A, who adventured further than he was told by the prospectus would be necessary, derives no benefit, because he would not play the gambler, and stake his last shilling. Is not this an everyday case? Let me ask also, did you never hear of a call being made with the view of reducing the number of shares by forfeiture? In the company carried on under the rules I have submitted, further capital, if required, instead of being raised by calls, will be raised by an issue of new shares, offered in the first instance (*pro rata*) to the original shareholders (who may accept or decline them), and then to the public: by this mode, A would still retain his shares without increasing his risk, and participate in profits, whenever derived.—*Jan.* 26. R. P. H.

FALLACIOUS VALUE OF MINING SHARES.

SIR,—In your Journal of the 22d January, I noticed the appearance of two distinct letters, from Mr. T. S. Thomas and "Benevolus," which, under preceding circumstances, I deem entitled to the courtesy of a reply. In acquitting myself of this, my prescribed task, I would fain venture to assure Mr. T. S. Thomas, if such assurance will afford him any satisfaction, that I am totally unconscious of the existence of any feeling of ill will towards himself in the minds of the mining community, or that any offence has been taken at the manner in which he has thought proper to conduct his mining operations; neither have I individually any cause of complaint to imagine against him; but, on the contrary, I have ever received from him the politest attention, whenever a call at his office became requisite, which is more than shareholders generally experience at the hands of the official managers and secretaries of mining companies, when seeking information as to their proceedings. I can adduce more than one glaring instance of ungentlemanly reception and contumely by managers towards co-adventurers, were such contra-disinction requisite. After this assurance, I should imagine that Mr. Thomas will readily dismiss the idea of any slight in my allusion to himself as to the delay which had unavoidably attended the publication of his first letter. With respect to the subject matter of our correspondence, a wider latitude of argument becomes naturally essential. A public inquiry is instituted (the justice of which no disinterested party will deny), for the express purpose of elucidating the reality or fiction presented by quotations in the *Mining Journal* of shares in uncertain or unexplored mining adventures, compared with others that have been successfully explored, and which are now paying periodical dividends, in amounts so considerable as to outweigh the loss likely to occur in numerous other undertakings, which, either from the want of sufficient funds, or other inherent failings, may never be prosecuted to a successful result. Such was the inquiry frequently called for by various correspondents, and instituted eventually by "Argus" (of Truro). If, therefore, in the course of that inquiry it became requisite to point out the extreme absurdity of rating uncertain, or ricketty adventures, at a higher marketable value than their established and successful competitors; and if for such special purpose a comparative list of mines requiring considerable outlay, placed in juxtaposition with others paying considerable dividends, and not requiring calls for costs, was found to present the most concise and conclusive evidence of facts to be submitted to public consideration, the parallel list of "Argus" became unavoidable.

I take it for granted that in that statistical compilation "Argus" has, without fear or reproach, as well as disinterestedly, and with perfect impartiality, solved the problem of fallacious value; and that, as a public writer of acknowledged mining experience, it was incumbent on him so to act. Such was my private opinion at the time, and such it still remains. And although your correspondents, Mr. Thomas and "Benevolus" may have imagined cause of complaint that their mining adventures should have been comprised in the category, still, upon cooler reflection, they must allow that the high rate of prices quoted for infantine projects was certainly illusive and fictitious. After Mr. Thomas's justification of his four mines, I will candidly admit that they are conducted upon honorable and legitimate principles, in respect to their constitution and regularity of management; and, if for momentary purposes they should have figured in a comparative parallel with others of less worth, I sincerely trust that the one or the other of these mining properties will eventually merge into the opposite list of competitors, and merit the scale of value now attached to them, in anticipation of that desirable result.

Possibly it may be expected that I should advert to the error into which I have been led, in supposing that Mr. Thomas and "Benevolus" were one and the same writer, in consequence of the former appearing to accept the challenge addressed to the latter; but that, I presume, is but of little moment. I have previously disclaimed every intention of invidiously reflecting upon Mr. Thomas, and I have also stated that I had not taken particular cognizance of the four mines collectively, only one of which I had occasion to recollect as belonging to him. Had I been actuated by the feeling or desire to depreciate his property, I might have taken reference to a circumstance that came under my own immediate knowledge, in respect to one of the four mines, in which a respectable party was about to invest so considerable a sum as 5000*l.*, but adopting the precaution of employing a practical mine agent of known ability to inspect the mine, and receiving an unfavourable report as to its value and prospects, he declined the investment, and, by a judicious outlay of a fee of two guineas, saved his money. Whether that party will have cause to lament such decision futurity alone will develope.

In reply to "Benevolus" I must be brief, considering the length of the foregoing reply, in which I presume his mining interest is embodied. I take, however, occasion to remark that when real matters of mining business are brought before the public it is time to curtail our little witticisms, in which the public may take no lengthened interest. However, Mr. Editor, neither I or your readers require to be reminded that the sentence addressed by the late Sir Robert Peel to Mr. O'Connell—"I thank thee, Jew, for that dear word"—was then a known quotation from a certain bard, named Shakspeare, who lived in the century of Queen Elizabeth, and not in that of Queen Victoria. It was its particular adaptation by Sir Robert that I was desirous of imitating in apostrophising the Mister Shareholder. Secondly, I agree with "Benevolus," "that a little learning is a dangerous thing." Possibly we may both be addicted to the *cacoethes scribendi*, and, consequently, may excuse each other; but why did he not favour us with the succeeding couplet of that poet—

"Words are like leaves, and where they most abound
Much fruit of worth beneath is rarely found!"

Surely he forgets that he had indulged in three consecutive letters, under the head of "Fallacious Value of Mining Shares," without once entering upon the real elucidation of the subject.

But to conclude. "Benevolus" has had the candour to admit that the parallel of "Argus," together with the publicity which certain mines have acquired through this controversy, has done much good, by increasing their value. If true, so let it be, and may "Benevolus" prove grateful; instead of this, however, he thinks of lashing "Argus" through me—the "Englishman" supposing that "Argus" can be so vulnerable, or so weak, as to exclaim "God help me from my friends." In this expectation "Benevolus" will be disappointed. Rather let me reply—"Heaven preserve us from the benevolence of 'Benevolus.'" In my appreciation, it were more in accordance with his assumed character were "Benevolus" to quote from a departed bard, and in the words of Byron's *Julia*, exclaim, through overwhelming indignation, "Argus, I could scratch your eyes out." AN ENGLISHMAN.

Jan. 26.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

SIR,—A good deal of surprise has been experienced at the extraordinary fluctuations in the price of the shares in the old established Imperial Brazilian Mining Association, which, after advancing to 7*l.* 15s. on the advent of the present administration, suddenly collapsed to 4*l.* or 5*l.* I shall not endeavour to show how this arises; popular rumour is rife on the subject. My wish is to confine myself to explaining, as briefly as possible, the state of the enterprise, and offering some suggestions. There are 10,000 shares of 25*l.* paid, and now quoted from 4*l.* to 5*l.*—an amount which formerly has been paid as an annual dividend on them when they were current at 100*l.* per share, after far more than returning the whole capital to the shareholders in dividends. The cause of the declension of the Imperial Brazilian from its wonderful prosperity has been clearly defined in the special report of the present administration, and to that cause an immediate remedy has been applied. Unprofitable working on Bananal has been suspended, and the whole force of the company concentrated on Gongo Soco, from which they have already extracted upwards of 1,432,000*l.*

The best informed, both in this country and in the Brazils, are of opinion that more gold remains than was ever taken out of it. This mine has always been productive, but was neglected in favour of Bananal, as it was thought easier to draw a fresh prize in the mining lottery by purchasing that estate, and expending on it about 40,000*l.*, rather than apply sound mining principles to Gongo Soco, as is now being done. Amongst the mines possessed by the company, and which they have never worked, are two gold mines, very celebrated in the country, contiguous to each other—Antonio Pereira and Catta Preta. Antonio Pereira produced to its late proprietor, in less than two hours, 2700 ozs. of gold. During the night the ground round the excavation gave way, and ten men and a foreman, left to guard the treasure, perished. A printed report which exists, speaking of these mines, says—"Antonio Pereira is the El Dorado of the old, Gongo Soco of the young. Catta Preta presents the prospect of a steady and sure return, with the chance, from its auriferous locality and vast extent, of yielding a discovery equal to Gongo Soco, provided we can get down to its wealth."

Let us now glance at the prosperity of the company.

1. One of the most complete mining establishments in the world, and the elements in perfectly known mines for 50 modern companies.
2. A large reserve fund in the Bank of England.
3. Estates extending over nearly 30 square miles of the most fertile land in the world, situated in a climate quite remarkable for its salubrity, not to speak of the buildings at Gongo Soco, including two churches, hospital, &c.

It can easily be demonstrated that this vast property has cost between 200,000*l.* and 300,000*l.* What may be its speculative value I shall not venture to estimate. It must not, however, be forgotten that Brazil, in its present prosperous state, is determined in promoting railways and other internal improvements, all tending to enhance the value of land in the interior. I have no hesitation in saying that a great reaction is now at hand. The shares of the neighbouring company of St. John del Rey at one time declined to 10s., and they are now at 31*l.* to 32*l.*, and pay 4*l.* to 5*l.* per annum.

The recent rise in the shares of the Australian companies is still more remarkable. In short, it is clear that the attention of the public is fully aroused to the importance of auriferous landed possessions. Is the Imperial Brazilian Mining Association to be the only exception? Doubtless, concentration at Gongo Soco will gradually be attended with success, especially if a first-rate head commissioner be on the spot, as was always the case when any good was done. But, meanwhile, are the immense possessions of the association to stagnate in the midst of all that is passing around us? Rather than this, the shareholders should call a meeting, to deliberate on the adoption of one or other of the following suggestions:—

1. The fusion of this association into a combination, uniting large capital and practical skill—the new amalgamated company having permission to work out Gongo Soco, and to gradually dispose of the other estates to a variety of companies, which would at once spring up under such auspices; or—
2. The dissolution of the association, and the realisation of its assets, which, if judiciously done, would produce an amount which at present few anticipate.

A meeting of this sort would at once enlighten the public, and probably attract the attention of parties whose co-operation in a great and *bona fide* undertaking of this sort would convert discount into premium.—A SHAREHOLDER: *London, Jan.* 31.

THE AGUA FRIA GOLD MINING COMPANY.

SIR,—A few months ago there was a meeting of this company, on which occasion the chairman explained that there was no intelligence to communicate, and very little to be done, the meeting being a mere formality at that time, and called only in obedience to the Deed of Settlement. He added, however, that some measures of importance were in preparation, and that when these were completed a meeting should be called, and every information afforded to the shareholders. Acting also on this suggestion, the board excused themselves from answering, and the proprietors forbore to press, certain questions, which it was intimated could not then be discussed without injury to the interest of the company. Since then it has been announced that a purchase of considerable value has been concluded. The particulars of this matter will of course be most interesting to the proprietary generally, who have been anxiously looking for the promised meeting. None, however, having yet been advertised, it is surmised that the purchase may not be, in fact, so advantageous as was anticipated, and that there is some natural unwillingness to answer inquiries such as might be made at a public meeting. I hope it may not be so; but if, by the insertion of this letter, any information on the point in question can be elicited, you will much oblige your obedient servant,—A SHAREHOLDER: *London, Feb.* 9.

THE NEW STEAM-STAMPS.

SIR,—Although Mr. Baggs's steam-stamps has been said to crush 20 tons of quartz per day, I have nowhere seen it stated the size of selve through which it is passed; and as no estimate of its utility can be formed until it is ascertained to what size the quartz is reduced, I think Mr. Baggs would do well to inform the public on this point, through the medium of the *Mining Journal*.—A CORNISH MINER: *Redruth, Feb.* 5.

QUARTZ CRUSHING.

SIR,—I am deeply interested in the question of quartz crushing, and I have made it my business to become acquainted with the various systems which have been introduced for that purpose. It is very far from my wish or disposition to undervalue the ingenious efforts of those who are striving to improve the various processes connected with the science of mining; but being, at the same time, somewhat *practical* in my ideas, I was not a little surprised at the positive and dogmatical importance with which the invention of a Capt. Shrapnel was paraded last week in your columns, as well as in those of certain non-scientific periodicals. The worthy captain's invention, as all the world is now aware, is for crushing gold quartz by the explosive force of gunpowder or gun-cotton, and a more *forcible mode* of operating upon such a refractory substance as quartz it is scarcely possible to conceive; but we, who are operating upon hundreds and hundreds of tons, require something more than mere abstract *force*—we want *economy*. Now, it would be very unjust on my part to assert, as an incontrovertible fact, that which I have merely received as such from other parties; but still I do not think that the report to which I am about to make reference is likely to meet with any vast amount of contradiction. We are told by the newspapers that the apparatus consists of a gun and a 10-ft. cubical wrought-iron chamber, one side of which is ½ in. thick, and strengthened by iron stanchions. The cost of the apparatus is said to be 400*l.*, the number of men to work it five, and the quantity of quartz which may be pulverised in a day from 30 to 40 tons. Being, as I before stated, greatly interested in these matters, and very closely occupied withal, I asked a friend to go and witness the exhibition, and furnish me with a few parti- culars. He did so, and now reports to the following effect:—

The gun was charged each time with 2 ozs. of powder, and, as far as the eye could judge, with about 8 lbs. of quartz. Each explosion reduced a considerable portion of the rock to powder, and eight such explosions took place within about half an hour, though it must be observed that the firing was not continuous.

From these data we deduce the following:—As 8 lbs. are to 2 ozs., so is 1 ton to 35 lbs.; therefore, 35 lbs. of gunpowder are required for the pulverisation of every ton of quartz; and taking the price of gunpowder at 50s. per cwt., this is equivalent, in round numbers, to 15s., so that the daily cost of crushing 30 tons of rock would be 22*l.* 10s., and this, too, putting aside the very important item of "spalling," for the captain can never think of effecting this important preliminary in the apparatus described. But I think I am going too fast. I have spoken of 30 tons in 12 hours, but my informant only saw about 8 lbs. pulverised about eight times in the half hour. Let us take a liberal view of the question, and say 10; this gives a result of 160 lbs. in the hour, or 1920 lbs. in 12 hours, which is not 30 tons, but absolutely less than *one ton* per day! Will the inventor be so kind as to correct me if I am wrong, and tell me not what his apparatus *may* do, or *can* do, but what it may be *shown* to do in a day of 12 hours? My sole object in writing is to get at the truth for my own benefit, and, I may say, for the benefit of others who may be interested in the question of quartz crushing. What rather surprised me was, that in the paragraph describing Capt. Shrapnel's invention, the writer should speak of it as being so infinitely superior to any of the new-fangled apparatus for crushing, concerning which (he observes) "we hear so many absurd tales." I do not precisely know to what this refers, but I am able to say, from my own personal experience, that some of this new-fangled apparatus, as it is termed, answers its purpose remarkably well—*not only* for crushing, but for spalling as well. I do not like to believe every thing I hear, and I confess that I was very incredulous concerning the power and effect of the new steam-stamps, advertised in your columns, until I had actually seen them. I went down into Wales to the Spitty Copper-Works, and through the kindness of the manager I was at once readily allowed every facility for observation and experiment. From what I then saw, I forthwith gave an order to the patentees for three 4-horse engines for myself, and I recommended the invention so strongly and conscientiously to the directors of two gold mining companies, who placed some faith in my judgment upon these matters, that they were induced to order five more between them; and, I may add, so far are they from regretting the step which they then took, that they have it now in contemplation to order a further supply. Some of your readers may, perhaps, feel a prepossession in favour of one plan or of another, but give me a thing which has been tried, and proved in practice to be good. My engines have cost me 110*l.* each instead of 400*l.* They are worked by three men instead of five; their power is not problematical or exaggerated. They *will* crush with ease 30 tons of quartz or ore per day of 12 hours; and if any of your readers have any doubt upon the point, and feel a practical interest in the question, let them do as I have done—go to the Spitty Works, and judge for themselves; that is the best way of setting the matter at rest. Allow me to say that I have, on many occasions, derived much valuable information from the perusal of your columns, and I have, therefore, very great pleasure in contributing my mite of practical experience to the general stock. JAMES BROWN.

King William-street, Strand, Feb. 10.

QUARTZ CRUSHING.

SIR,—A tilt hammer will strike 300 blows per minute, and a 16-horse power engine will drive four such hammers, striking collectively 2000 blows per minute. Each hammer, at each blow, will reduce ¼ lb. of the hardest rock to a fine powder. Hence the four hammers, working for 24 hours, will pulverize 320 tons. By an alteration in the form of the upper and under anvils, or hammer faces, at least 1 lb. of rock can be crushed at each blow. This will give 1280 tons for the whole quantity crushed in 24 hours by four hammers. I offer this suggestion to the Anglo-quartz mangling associations of the present age, and subscribe myself—CAM RING: *Feb.* 7.

MINING IN HELSTON.

SIR,—Having observed a letter from Mr. Symons under this head, in your last Journal, giving an historical account of the Great Wheal Vor United, and showing its vast wealth, about which I should think there cannot be two opinions, as well as its undiminished capabilities of production, it has occurred to me that there will be a very great saving indeed to be effected by superseding that old and most unsatisfactory way of applying power at present in vogue for pulversing the ore—I mean by *stamps*—by something far better. That as a mining man, interested in the successful and economical working of every large run of mines in Cornwall, I venture to suggest that the new company should adopt some plan for applying the pulverising power *direct* to the weight; and I venture to say they will find a difference in the effect produced, corresponding to what we see existing between a *pair* of horses side by side and a *tandem*, and, what is more, *gain thousands*.—P.: *Truro, Feb.* 9.

GREAT WHEAL VOR MINES.

SIR,—Seeing some letters in your Journal, as to the re-working of these valuable mines, I beg to say that such is the importance attached to this event by the inhabitants of this parish and neighbourhood, that I intend to propose that a subscription be raised for the presentation to Mr. Crease of some valuable testimonial, on the day which shall witness the first motion of the first steam-engine to be erected.

Breage, Feb. 2. OBSERVER.

PERRAN ST. GEORGE MINES.

SIR,—In your Journal of the 16th of October last, you have noticed a communication from a correspondent at Perran, as setting forth, circumstantially, a series of alleged misstatements contained in the reports from Prince Albert Mine. It appears that Captain Davies accuses me or my father, or both, with the authorship of that communication. Now, if it be not agreeable to you to publish the name of the real author, will you have the goodness, by inserting this note, to exonerate us from this false and invidious charge! Whether Captain Davies's mining conduct be consistent or not, I do not take upon myself publicly to state, but leave it, with that of all others, to the test of that sober and infallible tribunal—"Time:" and say, mum.—J. R. PILL: *Feb.* 7.

THE CAWSON HILL MINE.

SIR,—In reply to the enquiries of "N." (of Heavitree), in your last Journal, respecting this mine, I assure him he has no need to fear the tin being cut out—it must be first cut in. It is not an unkindly lode, and very probably will make tin and copper in depth, but I am not aware that any of either has been taken out as yet. I made a van from the small of the lode for tin, without being able to find a particle. I saw a very fine report recently, wherein it was stated they had holed to the old men's workings, and that the tools were covered with malleable copper. I have been at the mine more than once, and never saw any corode in the water, but found it as pure that any man might drink of it. In reference to those old workings, perhaps the accredited agent will point out where they are. There is a level which has been driven by the present party, and allowed to tumble in for the want of timber. If "N." (of Heavitree) wishes to become a shareholder, I should recommend him to employ some practical man officially to inspect the mine, and report thereon before embarking in it.—AN ADVOCATE FOR LEGITIMATE MINING: *Sticklepath, Feb.* 8.

[ADVERTISEMENT.]

WHEAL PROCKTER.

SIR,—Observing in the *Mining Journal* of last week the prospectus of Wheal Prockter with the reports of the several agents appended, together with an announcement to the effect that the mine was likely to produce 15 tons of rich silver-lead monthly, and yield a profit of not less than 40 per cent.; and, moreover, finding that they were quoted in your Share List at 12½ per cent. premium, I was induced to make some enquiries, with the view of embarking in the adventure. The results I will readily lay before your readers, as a caution to those who might, like myself, be disposed to embark (perhaps too hastily) in the concern, while it will afford an opportunity to the purser, or other authority, to set me right if I should have formed an incorrect opinion or conclusion. By the prospectus, it will be seen that certain gentlemen are named as the committee, whose respectability I do not for one moment doubt, but, as I am informed, two of the parties out of the four have written letters denouncing all claim and interest in the concern—hence their names must have been improperly and incautiously used. I have no knowledge of the purser, but the manager, Capt. William Richards, of Redruth, is a man standing too high in the mining and commercial world, I feel assured, to be associated with any adventure which was not of the first character. The amount to be raised is 6400*l.*—no further call to be made until the steam-engine is put to work; the cost of which latter, I assume, will be, with buildings, &c., some 1200*l.* to 1400*l.*—say, however, 2400*l.*—what becomes of the other 4000*l.*? The reports referred to were, I believe, made years since, and one of the parties is not now at hand to afford explanations. Taking things altogether, I think that an explanation, beyond reports, is essentially necessary ere parties embark their capital.

Feb. 11. SCRUTATOR.

[ADVERTISEMENT.]

WEST PROVIDENCE MINE AND ITS PURSER, MR. R. R. MICHELL,

SIR,—I think I am right in believing that the above mine is conducted upon the Cost-book Principle, and that transfers of shares, when once acknowledged by the purser as being registered in the cost-book, is deemed a sufficient and legal assignment,—if so, have the goodness to give publicity to the following facts, which are highly important, and should be generally known by the public. Some time ago I purchased of Mr. R. R. Michell in this mine, 20 shares for 1000*l.*, 30 shares for 1500*l.*, and 100 shares for 5500*l.*, for which he executed transfers; the two former to me, and the latter in favour of Mr. F. Pryor. Mr. R. R. Michell, in the capacity of purser, duly acknowledged the registry of the said shares into my name in the cost-book of the mine; and I further hold vouchers of payment to him of the purchase-money. I subsequently executed transfers to other parties of the shares held by me, and for some weeks had no reason to believe but that Mr. Michell had accepted them as shareholders; much, however, to my surprise, I found he had returned my transfer to one of the parties (Mr. Brown); and upon writing for an explanation, was informed, that unless I restored to him 300*l.*, which he had paid me, as profit and commission on the sale of 100 shares to Mr. Pryor, that he would not acknowledge or transfer any shares held by me in the mines of which he was purser. I, therefore, caused the transfer to be re-presented for registry, when he refused to acknowledge it, and for which irregularity on his part I had to pay Mr. Brown 330*l.* I immediately had my ledger posted up, and furnished him with a statement, embracing all the transactions completed betwixt us, amounting, on the debtor and creditor sides, to some 35,000*l.*; this he duly acknowledged, and admitted that a considerable balance was due to me. After much correspondence upon the subject, I have had recourse to law, and shall rest satisfied in the integrity and justice of a jury, notwithstanding the gentleman, the correctness of whose conduct is at issue, threatens me with all that money and influence can accomplish to pervert the verdict. The subject of accounts, however, has nothing to do with you; nor is it important in respect to his having refused to transfer my shares, whether I was a debtor or creditor of his at the time—the shares standing in my name, and, consequently, that he, as purser of the mine, had no control over them, with regard to any assumed difference which might be on private matters; but it is the position he now holds, and which more than any other person could have assisted him to attain, that justifies me in thus addressing you. Mr. Michell is the purser and manager of other mines; and I, as the representative of some hundreds of shareholders in mining adventures, deem his conduct so questionable as a public officer, that an immediate investigation of the accounts is essentially necessary. It cannot be a question raised by Mr. Michell, but that in this instance, at least, errors, whether wilful or otherwise, have been committed, which, at least, require explanation: and as that gentleman has already drawn attention to the matter, he will doubtless explain away those charges which have been alleged as affecting his character. I would, therefore, call upon the shareholders in this mine to join me in convening a general meeting of the adventurers in London, or I shall otherwise have no other alternative but to apply to the Lord Chancellor for redress. I may simply add, in conclusion, that if such be the case in West Providence, what security is there of his acting otherwise in Tremayne, Trumpet Consols, Wellington, Wheal Lemon, East Halamanning, and many other mines of which he is purser or manager?—R. TREDINNICK.

6, *Hayarket, Feb.* 11.

CRAFNANT COPPER MINES—NORTH WALES.

SIR,—The arrangements for the formation of a company to work the above mines being now so far in advance, all the preliminaries having been agreed on, and a large proportion of the shares already secured, it may not be uninteresting to say a few words on the mineral character of this division of North Wales, and to point out the chief causes of the failures of so many attempts to introduce mining into this country on that scientific system which has raised mining in Cornwall to the exalted position it so deservedly holds, and which even in that long-neglected country, Ireland, now proved to be teeming with mineral wealth, is securing for it the attention of English capitalists, and well repaying the proprietors of the country, as well as the parties engaged in the enterprise, for the mutual advantageous arrangements there entered into. The landed proprietors of North Wales seem to still hold that antiquated notion, that a royalty of 1-10th or 1-12th, fixed in the ages of feudal barbarism, should still be retained; and that to grant a "take note" on such terms, and under restrictive clauses so binding, as scarcely to give security to the holder then in possession, and thus make him feel the necessity of caution in laying out money on such adventures, and, consequently, prevent him from expensive trials on many indications, which a judicious encouragement on the part of the lord would undoubtedly cause to be prosecuted to full development, in most cases to very successful issues. Hence, as the mineralogist ranges through this rich, beautiful, but, unfortunately, up to this time, a country, so far as mining is concerned, with very few exceptions, shunned by capitalists, as closed against legitimate enterprise by the above causes, he sees so many miserable *cat-holes*—in derision, I should think—called "levels," in the sides of the hills and mountains, and sometimes, on entering these *levels*, meeting with holes scarcely wide enough to have admitted two men at bottom, now rejected, and looking as specimens of savage workmanship, far from what we should expect in this highly enlightened age of mining; and yet even here indications are to be seen which a good miner would consider well worth spending money on. There is no doubt but North Wales is not only rich, but very rich in metallic ores—aye, and even in the precious metals. Let the landlords give but the same encouragement to mining as given in Cornwall or in Ireland—that is, at favourable royalties, the more encouraging the better finally for the proprietors—and then it will be found what a different aspect the country will show in respect of mining; money flowing into the principality, as now into Ireland, and with a like successful issue; proprietors receiving large incomes from property now totally worthless, and the various companies well repaid by high and regular dividends for their investments.

There is one copper mine in North Wales, Drws-y-Coed, on the road from Carnarvon, by Pen-y-groes, to Beddgelert, most deserving the attention of the mining tourist, as highly creditable to the proprietors for system in every department of their mining operations; and which may serve as an example to prove that, where mines are worked as they ought to be worked, in a favourable mining position, with suitable machinery, and due perseverance, success will be the consequence. Here they have sunk to due depths, and are carrying on their underground works to immense returns of ores, which well, and deservedly, repay them for their outlay; and in all

like cases, and under such modes of working, we may reasonably expect equally satisfactory results. There are other mines in Carnarvon and Merionethshire which are in active process of development, under, I believe, experienced agents, and with good capital to carry out the intentions of the companies who are working them. To come to successful results—that is, to make these mines what the proprietors require, continuously returning dividend mines—it only requires perseverance in judicious and economical outlay of capital on the works, to be regulated by a careful attention to the geological and mineral structure of the country in which these mines are placed, that so the courses of the true lodes may be correctly understood, and thus to avoid mistakes, which I know have occurred in working on fugitive veins, sometimes caused by disruptions in the stratification, from hornblendic or syenitic rocks interfering with the general run of the ore-bearing rocks of the country. An experienced miner sees such and other occasional checks to his anxious desire of rapid development, and will, of course, take measures to avoid loss of time and money, by pursuing only indications which he is well aware are truthful and constant.

The Crafnant Copper Mines are now to be opened extensively, on a system of operations which, from their well-known capabilities, will place them among the first-class of returning mines. The reports from the mining engineers who have examined these mines, and other particulars, will, it is presumed, appear in your Journal; and these reports being so encouraging, there can be no hesitation in concluding, that by the perseverence, &c., recommended above, the results will be most satisfactory.

Gibson-square, Islington. ST. PIERRE FOLEY, M.E.

DEEP SEA SOUNDINGS.

SIR,—A letter from a respectable source appeared in the *Times* a few days ago, stating that Capt. Denham, F.R.S., had sounded a depth of 8¾ miles in the Atlantic, and that in doing so the time occupied in letting out the line was nearly 10 hours. Being sceptical as to the possibility of taking soundings in water so deep, I addressed a letter to the editor of that paper, which he has apparently declined to insert. I now request that you will have the goodness to call the attention of your scientific readers to the subject, that their opinions may be elicited thereon.—JOHN BULL: *Feb.* 4.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—We hope by the end of the present week to complete the plat in the 110 fm. level; we have just commenced driving north in this level to cut through the lode, when we hope to speak favourably of it: since we have been opening at this level it has drained the water from No. 1 winze under the 100 fm. level; here we have resumed the sinking of this, and find the lode to be worth, for copper ore, 60*l.* per fm.; the south part of the lode, in the different levels, is yielding a fair quantity of copper ore. The lode in the different stopes over the 100 and the 90 fm. levels, is worth from 50*l.* to 60*l.* per fm. There is no change to notice in any other of our tutwork operations since the last report. Our tribute department looks well.

BAT HOLES.—The lode in the 60 fm. level driving south is at present very hard and unproductive. The lode in the 48 fm. level, driving south, is 6 ft. wide, producing occasional stones of lead ore. The lode in the stopes in the bottom of the 40 fm. level, south of the winze, will produce 9 cwts. of lead ore per fm. The lode in the stopes in the bottom of the 36 fm. level will yield 10 cwts. of lead ore per fathom. At lower Bat Holes, the cross-cut in the 23 fm. level has passed through a branch of spar, about 9 in. wide, spotted with lead ore. As the water is strongly issuing through the forebreast of the cross-cut, I think there is something more ahead; consequently, we shall continue the cross-cut west in order to prove this piece of ground. During the last week, the lode in the 23 fm. level, driving south, has been poor, but this morning an improvment has taken place, having taken down a part of the lode, which is about 18 in. wide, yielding excellent stones of lead ore. We have not had time sufficient to prove its real value, as the lode is not taken down more than half way up the breast. This looks very promising for the future prosperity of the mine.

BEDFORD UNITED.—The new shaft is sinking by six men, and is now 1 ft. 6 in. below the 115; the ground is not very hard, and the men will get wages at 22*l.* per fm. We have 12 other men employed at this shaft, between the 115 and 70, in putting in rods, &c., the whole of which work will be completed by the end of the current month. In the eastern end, at the 115, the lode is 4 ft. wide, and worth 4 tons of ore per fm. Jenkin's winze, in the bottom of the 103, is being sunk by the side of the lode, and we have not yet cut into it; the 103 is being extended east by the side of the lode, which has not been taken down during the past month. The lode in the 90 end east has been discovered this last fortnight, but the branches are again coming together; and from their kindly appearance, we expect very shortly to have a productive lode in the end. We are driving by the side of the lode in the 80, and there is no alteration to notice, The pitches generally are looking very well, and the ore is rather better in quality than it has been lately; we therefore expect our sale, on the 17th inst., will be good.

BISHOPSTONE.—The mixture of ore in the roof of last cross-cut got poor, and is consequently stopped. Looking at the promising appearance of this lode for the last 10 fms. driven, it is my firm opinion that a rich deposit of ore will be eventually discovered about this point at a greater depth. It would be desirable to have a sump sunk from the east cross-cut, but this is impossible at this season of the year, owing to the large quantity of water that oozes from the lode. The ground in the breast is still very favourable, producing lumps of ore and spar mixed, 5 and 6 lbs. weight, and the end throughout is spotted with ore; I never witnessed more encouraging prospects than what this lode presents, without ultimately meeting with the most favourable results. The old timber having given away close to Francis's shaft, I have had to put four men there to make it good—this adit must be repaired for 40 fms. in length. There is also a little improvement in No. 2 shaft driving north on east lode.

BLACK CRAIG.—Since our last report the engine-shaft has been sunk about 2 fms., the ground is somewhat improved, the cost of sinking being now reduced to 20*l.* per fathom—this shaft is now down about 8 fms. below the 40 fm. level. The pitches in the 40 fathom level are looking well, most of them having improved during the past month. The discovery in the 28 fm. level, south of the old workings, has been laid open to some extent, and presents a favourable appearance. The cross-cut south above in the 18 fm. level has some good branches of lead ore, but not equal to that in the 28 below. A cross-cut south in the adit level has been commenced, in order to prove if the branches of ore extend upwards to that level. In the old engine-shaft the plat has been cut in the 25 fm. level, and the level set to drive west. At the Bog shaft, the 15 fm. levels have been cleared about 55 fms. to the cross-cuts leading to Daltammie strings, which were very rich in the former working. A considerable quantity of water has been taken up in the adit that before found its way into the old workings. The engine only consumed 5½ tons of coal during the last week, in consequence of the water being so much diminished. Our last shipment of ore, 53 tons 18 cwts., sold for 16*l.* 4*s.* 6*d.* per ton; a further quantity has been ready for shipment for some weeks, but been delayed, owing to the difficulty in procuring a vessel. The quantity raised during last month was about 66 tons of lead ore.

BLAEN CAYLEN.—Finding that we should not have sufficient water to work our wheel during the summer months, I took, in the beginning of the week, all the men from the shaft, and put them to make a water-course to bring in the water, which now runs by our deep adit, to go over the wheel; the trench will be about three-quarters of a mile in length, and will cost from 7*l.* to 8*l.* to complete. I have set a bargain as follows:—To cut plat for cistern in the 10 fathom level, fix it, and to put the lift in it; to make a penthouse; to sink the shaft 10 fms. 3 ft. below the 10 fm. level; and to cut a plat in the 20 fm. level, of the same size as the one in the 10, for the sum of 105*l.*; and I have promised to give a present of 5*l.* if completed within five months. I am glad to say the 10 fm. level east is again looking better; ditto west, no alteration. The deep adit is now driven to where I expected it would intersect the vein. The country is changing to a lighter clay-slate, very wet, and strings of spar—I am daily expecting to hear good news from there. From the nature of the ground, I have strong hopes that the lode will contain ore where intersected by the deep adit level.

BODMIN UNITED.—We have dropped the sinking-lift to the 50, and commenced forking below the 40 to-day (Feb. 7); I hope now that the water is in some degree subsided, that we shall see the 50 fm. level within a fortnight. The 40 fm. level is being cleared east; we shall shortly be able to set tribute pitches in this level, and to increase the number of pitches in the 30. The 30 end east is as last reported. Very little has been done in the 20 east since my last report; the men belonging to these levels have been clearing the level on the south part of the lode for ventilation. In the 10, east of footway shaft, the lode has very much improved since my last report, it is now 2 ft. wide, composed of gossan, with crystallised native copper interspersed, and grey copper ore. I enclose assays of a portion of the lode; No. 1 is a sample of grey ore, worth 65*l.* 17*s.* per fm.; No. 2 is a sample of the gossan, with native copper interspersed, worth 13*l.* 7*s.* 6*d.* per ton, with stone. We have opened some very good tribute ground at the back of this, which will set at a low tribute; the bottom of this level is included in the limit of a pitch working in the back of the 20, at 5*s.* 6*d.* in 1*l.* The tribute pitches are looking well. We are progressing with the dressing-floors as fast as possible, if the weather proves favorable we hope to have about 30 tons of ore dressed, on the temporary dressing-floors, in about a fortnight.

BOLENOWE.—The lode in the 20 fm. level, west of engine-shaft, is 18 in. wide. In the 10 fm. level east it is 2 ft. wide, and west 2½ ft., looking well. The engine-shaft and other operations are progressing favourably.

BORINGDON CONSOLS.—In consequence of the great influx of water from the 12, east of Annie's shaft, we have been obliged to cut cistern-plat and drop a new lift from the adit to the 12; consequently there has been but little done in sinking since my last—this is now completed, and the shaftmen have again resumed working; the shaft is down about 10 fms. 2 ft. below the 12. In the adit level the lode has improved since last report, now laying open ground that will set at a moderate tribute. I have put the endmen to cross-cut the north part of the lode, which we have not seen for a great many fms. driving, to ascertain whether this part of the lode is as productive as the part we are now driving on. In the 12, going east, the hulk, or leading part of the lode, is about 2 ft. wide, flookan, mundic, and lead, saving work, but not so rich as we expect to have in a few fms. more driving. There is a very large stream of water issuing from the end, which has completely drained the adit end, which is about 80 fms. further in advance than the 12. There is not the least doubt on my mind but that we shall have as good or better lode than we had in the adit level as we advance under the ore ground, as the lode was much better in the bottom of the adit than in the back. The 12, going west, is still laying open tributs ground. Murchison's shaft the men are busily engaged in dividing, which will be completed this week, when we shall resume driving on the course of the lode. We have sent samples of our ores to the different purchasers—No. 1 (computed) 15 tons; and No. 2 (computed) 18 tons.

BOSORN (TIN).—In the 30 fm. level, at the bottom, they are still continuing to draw fine stones of tin to the surface from the westward of Halket's shaft. The lode in this shaft is, if anything, rather better than at last report; and will I hope present an improvement in a short time. We have not taken down the lode in the stopes in the back of the 30 fm. level as yet.

BOTTLE HILL.—All the men are in their places working, and most of them are breaking tinstuff for the stamps. In Strode's shaft the lode is looking very well, and the ground is better for sinking since the shaftmen cut a slide, but they have not taken down any of the lode. In the back of the 50 fm. level, east and west of Vigue's shaft, the stopes are looking very well, and turning out better work than I have seen; should this lode continue we shall soon make up our loss in the past breakage, I have also put six men to prepare for sinking in the bottom of the 50 fm. level, a little to the west of Fezzey's shaft, where it is reported by the old men that we have a lode worth 50*l.* per fm.; we shall now sink and stope in this bottom by the aid of a small water-wheel—10 feet diameter and 1 foot breast, by the aid of this I hope to be able to sink down 10 fms., which will save a considerable sum of money. In different parts of the mine we have 14 men working on tribute, some of them are getting more than ordinary wages. We have four men driving the 28 fm. level, east of Josiah's shaft, the lode large and tinney, but not a rich one. We have also six men stoping the back of the 12 fm. level, west of Josiah's shaft, and this stope is turning out good tinny work for the stamps. I have sent away the tin samples to the different smelting-houses. We shall rise, dress, and sell as fast as possible.

BRONFLOYD.—We have now driven through about 4 fms. of good orey ground in the deep adit, west of engine-shaft; the end continues much the same as last reported, worth quite 1 ton of lead ore per fm. There is no alteration in the level east.

CALLINGTON.—At the south mine, the lode in the 125 fm. level north is 6 in. wide, yielding 1⅓ cwt. of lead ore per fm.; we calculate the driving of this end will lay open profitable tribute ground, it is now within 25 fms. of count-house shaft; the incline shaft is sunk 31 fms. below surface, the main part of the lode is standing a few feet east of the shaft, but we have a branch from it in the shaft 3 in. wide, yielding 1 cwt. of rich silver-lead ore per fm. We are driving the adit level, north of incline shaft, by two men desuing the lode; we intend to commence to take down this lode in a few days, when we will forward you particulars of the same. Kelly Bray shaft is sunk 6⅓ fms. below the 70 fm. level; no lode has been taken down in this shaft for the last 6 ft. sinking, we expect an improvement in the lode in 9 ft. or 2 fms. more sinking, by getting in contact with the bunch of ore seen in the 70 fm. level, a few fms. east of the shaft dipping west. The 70 cross-cut north is now driven 22 fathoms, the stratum is still very much mineralised; we are daily expecting to intersect Rowe's lode. The lode in the 70 end east is 3 ft. wide, yielding 4 tons of copper ore per fm., worth 7*l.* 10*s.* per ton; the lode in the 70 back stopes is 3 ft. wide, yielding 3 tons of copper ore per fm., worth 7*l.* per ton. The lode in the 60 end east is 2½ feet wide, yielding 2 tons of copper ore per fm., worth 7*l.* 10*s.* per ton The tribute department, both lead and copper, are much as usual. We intend sampling a parcel of silver-lead ore on the 20th inst., about 24 tons.

CARADON WOOD.—The ground in the engine-shaft is a little harder than it has been; the men have sunk in the last week about 3 ft., which makes the shaft 6 fms. 3 ft. 9 in. below the 30. We have sunk a winze in the bottom of the 30 about 6 feet, and the lode is poor; we have put the men to drive the end north. The south end has been driven the last week about 10 fms.; the lode is about 2 feet wide, composed of spar, prian, mundic, and flookan, and if we judge from the present appearances we might say we are promising to make lead.

CARBERRY WEST.—The level driving on Chief Constant is producing rich stones of grey and purple ores, with quartz, gossan, chlorite, and green carbonate of copper. The rock through which this lode runs is so mixed with granular ore as to produce from 8 to 14 per cent. of copper, which, when dressed, may be averaged worth 10*l.* per ton; the breadth of the lode is considered from 12 to 16 ft., and will, it is assumed, make large deposits on the granular ore, now so widely seen at or near surface, concentrating at depth, as usual in similar cases. The open works on the Danish lodes and ore grounds of this division are of great breadth, and make grey ore to a breadth of 30 ft., chiefly granular, but of a fair average per centage to pay when prepared for market. At Bingham's shaft rich grey ore has just been cut at bottom, so that as the resident agent writes, two or three days will throw considerable light on this important matter. He adds, "I beg to assure you that Carbery West never looked so promising as it does at present."

CEFN BRWYNO.—The lode in the deep adit level east is 3 feet wide, with small branches of ore, and very promising. The lode in the 24, west of engine-shaft, is 4 ft. wide, producing 1¾ ton of lead ore per fm. In the 24, east of the long winze, 40 fms. west of cross-cut, the lode is 4 ft. wide, yielding 1¾ ton of ore per fm.—this point will be holed in about a week. The two stopes in the back of the 24 are yielding 1¾ ton per fm. The cross-cut south of shaft, in the 38, is approaching the lode. In the adit east the lode is 3 ft. wide, poor, being in a cross channel of ground at present.

CHARLESTOWN UNITED.—The sumpmen have finished altering the lifts, &c., and are now in a fair way of sinking the shaft on to the 20 fm. level; the ground is good for sinking; we expect to arrive at that level in about three weeks from this time. The lode in the 10 fm. level, both east and west of the shaft, is about 2 feet wide, producing very rich work. The lode in the stopes in the back of the adit level is without alteration from former reports. We commenced this morning (Feb. 10) to clear the adit level on to Little Fat-work Mine, where such extensive works have been made on the backs of the lodes by the ancients. This level passes through several lodes, and comes into the above mine about 10 fms. below the surface. We will keep you regularly informed respecting the various lodes as we pass through them.

CHURCHSTOKE.—We have commenced sinking the engine-shaft—10 yards of which I have let for 25*l.*

CLEW BAY (MAYO).—The driving upon the copper lode at Benderg continues with increased success, it being this week 1 ft. wide. The north branch is deepening, looking beautiful and exceedingly metalliferous. Preparatory operations have been commenced at the sulphur mine at Gubuabinnabee, the pyrites already raised being very rich and valuable.

CLIJAH AND WENTWORTH.—The 40 fm. level east, on Mary Ann lode, is driven 10 fms., and I expect to cut the cross-course here very soon; the ground is more favourable in this end than it was when last reported on, we are now driving at 5*l.* per fm., the lode is small, composed of spar, prian, black ore, &c.; the 40 west is driven about 9 fms., the lode continues just the same as it has been for some time past, a large lode of spar, mundic, copper, &c.; this end is very wet for working, so that we cannot make that progress we wish—driving now at 7*l.* per fm. The north cross-cut in the 30 fm. level is extended 13 fms., the ground is still favourable for working; we are using some timber here, but not much—driving at 2*l.* 5*s.* per fm. The cross-cut driving south of Mary Ann lode is extended 14 fms.; the ground has been very hard here for the last 2 fms., being nothing but spar, but it appears to be changing for the better, as the spar is leaving us. The 30 fm. level, on Mary Ann lode, is driven east 25 fms. from the engine-shaft, the lode is in a pretty stratum of white killas, but it is small and unproductive—driving at 3*l.* per fm. We have commenced building the coal-yard wall, and if the weather proves fine, it will be finished next week.

CREETOWN.—In No. 3 level the lode is still split, but has almost come together in the bottom; in 3 or 4 ft. more driving we shall prove whether it will make anything at the junction; the branch on the footwall is about 8 in. wide, composed of gossan, spar, good stones of lead, and spots of copper; the hanging branch contains a little copper; altogether the lode looks very promising for making ore in depth. There is no alteration in the backs since last report. The horse-whim went to work to-day (Feb. 10), and they have forked about 3 fms.; by the day after to-morrow the water will be out, and the shaft ready for them to commence cutting the lode. The engine-house is only waiting for the engine. The new lode down the hill is certainly No. 1, and runs in a direction to take up No. 1 level; I like the appearance of it very much indeed, and have some good stones of ore that came out of the shode pit, but could not see much, owing to the rain having washed in the stuff, and covered it up. No. 4 level is barely under cover, and no rock as yet.

CROW HILL.—The water is in fork to the 15 fm. level, but it will take some days to clear, so as to see anything of the lode; we have only just cut into it about 4 fms. below the adit, where we broke some fine stones of lead.

CUBERT UNITED.—We are now getting on well with forking both mines at Trebiskin; we hope to have the water in fork in the 45 by Saturday (12th inst.); the water is much abated in the 25, it having been recently discovered that the influx there proceeded from Trebellan Mine, through a cross lode, which intersects the lodes of both mines. It has been cut through at Trebellan in the 16, and at Trebiskin in the 25; since, however, the water has been drained below the 16, at Trebellan, it is much abated at Trebiskin, and affords every prospect, at present, of having both the mines drained to bottom, and trust we shall henceforward be enabled to proceed prosperously with our underground operations. The lode in the 35 east is at present about 3 ft. wide, consisting chiefly of kindly quartz, thickly spotted with lead, altogether very promising; for want of ventilation, we are unable to drive this end to the west until the rise is holed to the 25, and which we expect to have completed in a short time; there is, however, an excellent lode, both in the end and in the rise; from the latter we are raising good quantities of lead. The lode in the 25 east is much the same as last reported, still rich for lead, and every way promising. The lode in the 15 east is kindly, and yielding some stones of lead, but still in gossan; the north part of the lode in this level, to the west, has not yet been attained, but from the very favourable ground, and other indications in the cross-cut, we have reason to believe that we are nearing something valuable. There is a very promising lode in the winze sinking under this level, and productive of some good bunches of lead. The general appearance of the mine at present is very encouraging.

CWM DARREN.—In the 20 fm. level, west of engine-shaft, the end still continues much the same as last reported, worth about 4 cwts. of silver-lead ore per fm.; the 20 fm. level, east of ditto, is now producing some saving work for the crushing-mill. The winze sinking from the 10 to 20 fm. level is now down 7 fms. 2 ft. The stope in the back of the 10 fm. level, west of engine-shaft is worth 6*l.* per fm. for copper. The stope in the back of the 10, east of ditto, is worth 5*l.* per fm. for copper.

CWMDYLE ROCK AND GREEN LAKE.—The stopes throughout No. 1 level is just the same as when last reported. The stopes working between No. 1 and 2 are improved during the week. The lode in the stope in No. 2 is 1½ feet wide, 8 inches of which is solid copper; the end driving at this level is without alteration since last week. In Pascoe's level we have commenced stoping the winze on the west side, and have a lode 5 ft. wide, with copper thoughout; the lode in the end driving in this level is 2 ft. wide, producing some good stones of copper. The stopes at Nos. 5 and 6 are still yielding a fair quantity of good copper. We have had some heavy falls of snow since last Friday (Feb. 4), so that all our surface work and dressing is stopped for the time. I have put several hands to clear out copper now lying in the different levels.

DEVON AND COURTENAY.—The lode in the 70 end is much the same as last week, spotted throughout with ore. The lode in the 60 end is not quite so good, but still turning out good stones of ore; the lode in the eastern pitch will turn out 2 tons of ore per fm. At Rendle's, the lode is in the shaft, but have not broken it through; consequently, I cannot say what it is composed of. The lode in the end driving east is about 1 ft. wide, composed of soft spar and mundic.

DEVON UNITED MINES.—We have cleared the 40 fm. level south of all the rubbish that had fallen in since its suspension, and have resumed the driving east on a copper lode, which must have been intersected by the former party; it is 18 in. wide, 6 in. of which is what is termed a solid branch of ore. A small box of specimens shall be sent to your office for the inspection of the directors. I will also call and explain to them the prospects, and give any other information I can relative to the concern.

DUNSLEY WHEAL PHŒNIX.—The pile of tinstuff we have at surface is composed of copper, rich gossan, mundic, and stained with copper throughout. We have now cleared our shaft down to the old workings, and shall shortly use every effort to see the lode in the adit, from which this pile was broken.

EAST BLACK CRAIG.—Since our last report the adit has been cleared to about the extent necessary to reach the shaft, but the old workings are so filled with stuff and water, and the whole in such a ruinous state, that the cross-cut from the shaft to the level has not yet been properly cleared. The water-course for bringing in the water to work the pressure engine is in a very forward state, and will be completed in good time.

EAST CROWNDALE.—There has been no lode taken down in the 58 east this week nor will there be for some days; driving by its side. I have put two men to drive the 47 west on north lode. We are getting on as fast as we can with the necessary work for fixing the plunger-lift at the 58 fm. level. The tribute pitch on the south lode improves as the men sink under the level. The other pitches are without alteration since last report.

EAST GUNNIS LAKE.—The engine-shaft, on the north lode, is sunk 2 fms. 6 in. below the 36 fm. level; the ground is hard and troublesome, the price being 30*l.* per fm.; the lode, which is still in the shaft, is 2 ft. wide, composed of spar and mundic, and producing very good stones of ore. In the 36 fm. level, the lode in the western end is 3½ ft. wide, and producing very good work; in the end eastward the lode is much improved, and we are now laying open good tribute ground both east and west of the shaft, and purpose setting it on tribute next survey day. The cross-cut south in this level has not yet reached the middle lode, but it cannot be far off. In the 28 fm. level west the south lode is 4 ft. wide, but poor and unproductive, and at the same time hard and expensive, but from its general character we may expect a sudden change, and therefore think it advisable to continue the driving westward. There is no alteration to report in the tribute department, the pitches being set at the previous rates—viz., 13*s.* 4*d.* in 1*l.* At the expiration of the current month we shall begin to raise more ore, and shall consequently require machinery for drawing and crushing, which will, however, be comparatively inexpensive, as we have ample water for all purposes.

EAST POLGOOTH.—In driving the last 6 ft. in our 30 cross-cut we cut three small branches from 1 to 3 inches wide, composed of white prian and mundic, with spots of yellow and black oxide of copper; those branches, with Leely's and the promising branch we cut in the beginning of last month, will all fall together in intersecting our main lode about the 50. From what I have seen in the adjoining mine, where lodes and branches of a similar character as those in our mine intersect each other, I am decided in saying I believe the results will be a good and profitable lode. The lode in the 30 east is larger than last reported, and promising a further improvement. The lode in the 20 end, on main lode, is not so large as last reported. The 20 end, on Leely's, does not present so good an appearance as at my last report; lode disordered by a small cross-course. No alteration in the 20 fm. level cross-cut. New shaft is down nearly 19 fathoms, ground much the same. We are progressing favourably with our surface operations.

EAST WHEAL GEORGE.—The engine-shaft sinking below the 32 fm. level is still in the north capels of the lode, which is without alteration since my last. The lode in the 31 fm. level west is 2 ft. wide, composed of capel, peach, and spots of ore, but not enough of the latter to save.

— *Feb.* 3.—The stopes in the back of the 23 fm. level west is yielding good work for the stamps. The lode in the rise in the back of the 12 fm. level, east of shaft, is from 2 to 2½ ft. wide, of a very promising character, producing large stones of ore of good quality, and indicates a further improvement. We expect to have about 30 tons of ore to sample by the end of the month.

EAST WHEAL REETH.—During the past week the sumpmen have sunk the engine-shaft about 2 fms., and the ground continues good; the north and south and east and west lodes in the shaft improve both in size and quality. In the 44 fm. level, south of engine-shaft, the lode is much larger and better in appearance than heretofore; the ground is favourable for driving, and congenial for tin; we are raising from the 44 fm. level, north of engine-shaft, some rich tin, and shall shortly be in a better position to report more fully as to its worth and productiveness. I may add that the ground throughout the mine having so decidedly changed for the better, we may calculate upon making rapid progress with our exploring operations.

EAST WHEAL RUSSELL.—We have met with some splendid stones of grey and yellow copper ore in the 55, driving from Hitchins's shaft towards the cross-course, which will be under the tunnel level 10 fathoms, and which gives indications of great courses of ore between the two levels and cross-courses. Our shaft is looking splendid, and before long I expect to find something extraordinary there. We have broken some splendid stones of black and grey ore to-day in the tunnel in the back of the lode; we shall not take down the grey part for a few days, but you shall then have information as to its quality.

— We have sunk and made good Hitchins's shaft 6 fathoms 3 feet 6 inches below the 55 fathom level; the lode in the shaft is just the same as in my last—I never saw a more splendid gossan for copper; the lode still keeps its size and regular underlie. The 55 driving east has become softer, the lode looking very kindly for a course of ore. The men have brought up from the end some good stones of grey, black, and yellow ore; the end west, in the same level, is similar to when I last wrote. The 45 end, driving towards the cross-course and tunnel end, is looking more promising than at my last report; the lode is impregnated with ore and greens; I believe we shall have a course of ore in this end shortly. The cross-cut north, driving to intersect the north lode, is just the same as in my last—in killas, branches of spar, and plenty of water. We shall resume taking down the lode in the tunnel level end immediately, and will then write you the result of it.

EAST WHITE GRIT.—Laurence's shaft is something harder; I have, therefore, advanced the price of sinking 20*s.* per fm. The 20 fm. level has been driven 25¼ fms. this month through very promising ground. The tribute pitches have much improved the last week; and there is now a good pile of ore at bank.

ESGAIR LLEE.—We have intersected the south lode in the 20, east of the heave, and have cut through it for about 18 in. wide, composed of slate, quartz, carbonate of lime, and producing good stones of ore. No lode has been taken down in the 10, east of the junction, during the past week, but I am glad to inform you that this level has so much drained the eastern part of the mine that the winze which we had been sinking 50 fms. a head, and had been obliged to suspend it in consequence of the quickness of the water, is now almost dry, the water in it during the past six days has sunk 6 ft., and as soon as the western winze is holed to the 10, we may sink the eastern one quite dry. We cannot speak of any alteration in the Bwlch Gwyn lode in the deep adit east, since last reported on. During the past week we have driven our 12 fm. level above adit, 4 fms. east of Harding's rise on the south port of the lode, all in a course of ore, and in order to ascertain the whole breadth of the lode, we have put four men to follow the end on the north part of the lode, and we have already found the part left standing by the end men to be 6 ft. wide, all in a course of ore, and as yet no north wall. It is now doubtful whether there is a better or more promising lode for 12 fms. high and 12 fms. long, in the county, with the exception of Frongoch, than we have at present, and is still, going up and east, as good as ever, with about 50 fms. of back over same.

EXMOOR ELIZA.—The engine-shaft is completed to the 50 fm. level, which is now being driven east and west by 12 men; the lode west of the shaft is large, and spotted with copper ore, and, as far as has been seen, does not contain one-tenth part of the quantity of mundic met with in driving the 36 fm. level, and also in sinking the shaft to within 3 fms. of the bottom; the lode east of the shaft is also very large, composed of capel, peach, white iron, and spotted with mundic and copper ore. The gossan appears to be completely unbottomed; this, combined with the general characteristics of the lode, both east and west of the shaft, fairly warrant my strongly recommending this level to be spiritedly prosecuted. Our chance of productiveness is also considerably increased by the fact that in this level, both east and west, several junctions with other lodes will be formed.

EXMOUTH AND ADAMS UNITED.—In consequence of the continued floods of rain, from which nearly all mines have suffered, the best part of this mine—namely, the 85 fm. level, the 20 under adit, or 50 fm. level, and the adit end south—have not been seen since the last general meeting, but in a fortnight from this time I think they will be resumed again. The air shaft is communicated with the adit south, and a good ventilation obtained. The operations in the north of Wheal Adams have been suspended, not being of sufficient promise to continue. I advise a shaft being sunk still further north to prove this part of the sett, and believe it to be a good piece of mineral ground. The dressing-floors have been considerably enlarged, and since the 20th Nov., the day on which ores were first cleaned for the amalgamated company, 126 tons have been dressed—91⅓ have been sold, and 35 tons are now in the stores. Lord Exmouth has offered a most eligible site for the erection of an engine, and the sinking a shaft; I strongly recommend your commencing this work as speedily as possible, as I have no doubt, when this is done, and the work referred to above completed, your returns and profits will prove that you have one of the most valuable and permanent mines in the county. I was underground in Exmouth part yesterday (Jan. 31), and found by cross-cutting west in the south part of the mine in the 10, a good branch of lead is discovered, which promises further improvement in depth, and this discovery is the more important as it confirms the opinion I have before expressed—viz., that this mine will be found richer in depth and southward. As the more valuable points of the mine have been untouched since the last meeting, its prospects, therefore, must remain the same.

FRIDD LLECHWYDD (LLANUWCH, CAERVONSHIRE).—We have resumed driving in the 16 west; the ore is 2 ft. big, very nearly solid, and intermixed with a quantity of white lead; it is accompanied with a beautiful bed of gossan on the heading side; and the average width of the vein is 5 ft. A copious stream of water issues from the breast, far more than ever before; altogether, I think we have a tolerable course of ore, and by the end of the month will have a parcel ready for sale.

GOGINAN.—The lode in the 60 fathom level east is still very large, spotted with ore throughout. The lode in the western shaft is 10 ft. wide, yielding full 1½ ton of silver-lead ore per fathom. The lode in the 55 fm. level, west of the boundary shaft is 4 feet wide, orey throughout, with a very promising appearance. The pitches throughout the mine are looking much as usual—on the whole, pretty well.

GREAT BRYN CONSOLS.—We have this day (Feb. 5th) inspected all the operations in this mine. The capel of Lelean's tin lode is cut in the engine-shaft about 4 ft. above the 20 fm. level, but the lode is not yet cut through. The part of this lode intersected is 18 in. wide, from which we have this day sent to the surface two whim kibbles of tinstuff—the quality of which is much the same as in the 10 fathom level; the average is 5 cwts. per 100 sacks. The copper lode is also cut in the shaft about 4 ft. north of the tin lode. This copper lode is composed of spar, peach, and flookan, with portions of malleable and yellow copper ore, and will go through the tin lode between the 20 and the 30 fathom levels; and in the 30 we shall have 8 fms. to drive north to cut the tin and copper lodes, and 10 fms. east on the tin lode to cut the caunter. There are other branches producing copper, which will be intersected in the 30 in the driving alluded to above, before we reach Kernick's caunter lode. In a post or two, we shall be able to write you more fully about the lodes cut in the bottom of the engine-shaft. The winze sinking below the adit is 5 fms. deep, which is sunk by the side of the tin lode; and we have put the men to take down the lode to supply the stamps with tinstuff. The tin lode east in the 10 fm. level is 3 ft. wide—fair average tinstuff; and the lode in the stopes in the back of the 10 fathom level is much as last reported.

GREAT CRINNIS.—The ground in the north cross-cut presents the same appearance as when last reported on. The tributers will sample to-day (February 7) about 5 tons of good copper ore. We shall engage some men at once to clear out ground for the foundation of the engine-house, procure quarry stone, and prepare sheds for carpenters, smiths, &c. The engineer will be on the mine this week, to mark out the foundation for the buildings.

GREAT TREGUNE CONSOLS.—The stamps-wheel is at work. We have forked the water in the western shaft in the old workings, and shall commence sinking in a day or two. The Flap-jack will be finished soon; we want miners to extend operations.

GREAT WHEAL BADDERN.—If we have no stoppages with the engine the water will be in fork to the 40 fm. level, at Burgan's, by Thursday morning, the 10th inst., when we shall be able to get away some work for the dressing floors. The lode in the 30 fathom level east is 15 in. wide, producing good work for lead. The lode in a winze sinking below the 20, on the new lode, is 2 ft. wide, composed of spar, mundic, and spots of lead. The lode in the adit west is 2 ft. wide, composed of gossan and spar. The lode in the 20, west from Sunderland's, is 6 ft. wide, producing good work for tin. The ground in the new shaft, on the lead lode, is improved, and we are getting on sinking very favourably at present. The stopes in the back of the 30, which are all we have been able to work for the last month, are looking well, and the tribute pitches are looking much the same as for some time past. We have about 60 tons of mundic at Devoran waiting for a vessel, and shall have a batch of tin ready for the smelting-house by the 15th inst.

GREAT WHEAL TONKIN.—On Monday last (Feb. 7th) we commenced layin open two other lodes in the north part of the sett; but was prevented prosecuting the work in consequence of the snow. I hope to have these lodes in a position for report next week.

GUSKUS.—In consequence of not being able to sell our tinstuff to advantage, we have stopped some of our best tin pitches. We should be making cost to go on working them without the benefit of selling the tinstuff and turning it into cash. The engine-shaft is now 5 fms. 4 ft. below the 30 fm. level; ground harder now than in the first part of our sump; the lode is 3 ft. wide, producing good tinstuff. The 30 fm. level, on Guskus lode, is now 15 fms. east of the engine-shaft; it is 3 ft. wide, producing tinstuff throughout, but not so good as when I last reported. The 30 fathom level west of shaft, on Guskus lode, is extended 17 fms.; the lode is 2½ ft. wide, producing tinstuff, not rich at present. The 30 fm. level, west on Martin's lode, is driven 11 fms.; the lode is 8 to 9 in. wide, disordered by a slide, but is nearly under the ore ground gone down under the 20 fm. level. The 30 fm. level east, on Martin's lode, is 5½ fms. east of the engine-shaft; the branch is 8 to 10 in. wide, producing stones of copper ore; the ground is worth 40*s.* per fm. The 20 fathom level east of shaft, on Guskus lode, is driven 30 fms. from the engine-shaft; the lode is large, but rather in a disordered state at present. The 20 fm. level west, on Guskus lode, is extended 28 fms. from the shaft; the lode is 3 ft. wide, producing both tin and copper, not rich. The 20 fm. level, west on Martin's lode, is driven nearly 40 fms.

from the shaft; the lode is 1 ft. wide—good ore, say, 1 ton to a fm. The 10 fathom level, west of Stainsby's shaft, is 18 fms. from the shaft; the lode is 13 to 18 in. wide, giving a little tin and copper ore. Francis's shaft is about 64 fms. east of the engine-shaft; here the 10 fm. level is extended 4 fms. east; the lode is small and unproductive. The 10 fm. level west, on Martin's lode, is yielding a little good copper ore; in the cross-cut, north of Martin's, ground is much the same—7 fms. from shaft.

HALAMANNING AND CROFT GOTHAL.—In the 30 and 40 fm. levels, west of Buzzo's, on Bulley lode, there is an improvement in each of the ends since my last. We are sinking our shafts as fast as possible. The tribute is much the same as usual. We have erected two horse-whims on North Halamanning, and have got down to the adit: here we are obliged to clear and put in a few small launders.

HENNOCK.—The engine-shaft is now down under the 50 fm. level 3 fms. 4 ft., sinking in a stratum of decomposed hornblendic trap, or what is generally termed in this neighbourhood elvan; about the 50 fm. level is the first appearance of this ground, and I have every reason to believe that it will make a satisfactory change in the lode at our deeper levels, and drain all the small patches of lead into one large one; the 50 is now driving on the eastern side of the lode in much easier ground, the price reduced from 6*l*. 10s. to 4*l*. 5s. per fm., now driving by four men; the 50 north is suspended for the present. The 40 south is now driven, since we cut the lead, 6 fms., and the lode in the present end is showing a better appearance, well spotted with lead, and the lode getting softer; however, I think we shall have 3 or 4 fms. more to drive south before we meet with the best shoot of ore gone down from the 30 fm. level, now set to four men at 5*l*. 5s. per fm.; the winze sinking under the 40 fm. level is now down 2 fms. 4 ft., the lode about 2½ ft. wide, and for the last 9 ft. has been poor, but is again improving, and producing good saving work, set to four men at 7*l*. per fm. The 30 fm. level south has been driven since we cut the lead ground 12 fms., the lode averaging in size about 4 ft., and has produced for the last 4 fms. 12 cwts. of lead per fm., and the remainder has produced about from 7 to 8 cwts. per fm.; the fact of our having the lead nearly all cleared up, is a demonstration of the quantity the lode will produce; the lode in the present end is making larger, and not quite so much lead, but still a very kindly looking lode, now set to six men at 4*l*. per fm.; where I intend to sink the winze in the bottom of the 30 fm. level, the lode will produce 12 cwts. of lead per fm., price for sinking about 4*l*. per fm., and will open tribute ground that will be worked for from 5s. to 6s. in 1*l*. Since we have dialed the different levels, I find that the shoot of lead ore in the 30 fm. level corresponds with the ore gone down in the bottom of the adit level at Coade's old shaft, if so, it will leave us 30 fms. of backs; but, in cutting it 20 fms. of backs, and now for (say) 10 fms. in length, and the produce of that 10 fms. in length have been, 4 fms. at 12 cwts., and 6 fms. at 7 cwts. per fm., which, on an average, is 9 cwts. of ore per fm; the 10 fms. long, and 20 fms. high is 200 fms., and say 9 cwts. of lead per fm., is 86 tons, at 15*l* per ton—1290*l*. Then there is the lode gone down in the bottom of the 30 fm. level for the same length and quality, and from the lead seen in the 40, we may fairly calculate one-half of the other amount, say 600*l*. worth. Of course you are aware there is no other mode of ascertaining the quantity of lead in a given quantity of ground but by the ground driven through in the levels and winzes sunk from one level to the other. I have this morning (Feb. 7) received a letter from the Tamar Smelting Company, stating that a vessel will leave Plymouth to-day for Teignmouth, to take the last parcel of ore we sampled, and expect we shall weigh it off, and ship it on Wednesday or Thursday next.

HERODSFOOT.—The engine-shaft is sunk to the 150 fathom level, and we are now driving south by the side of the lode; as soon as the men have extended the level a few fathoms from the shaft, we purpose to cut a tip-plat, and then drive north also; the ground is easy for driving, and the lode, when last taken down, was worth from 4 to 5 cwts. of ore per fathom. The 137 fathom level is being extended south by the side of the lode; the stope in the back of this level is yielding 5 cwts. of ore per fm. In the 127 fm. level north the lode in the end is producing 4 cwts. of ore per fm.; the stopes in the back of this level are worth on an average 6 cwts. of ore per fm.; in the same level south the lode in the end is yielding 6 cwts. of ore per fm.; in the back of the level, No. 1 stope is worth 6 cwts.; No. 2, 10 cwts.; No. 3, 12 cwts.; and No. 4, 8 cwts. of ore per fm. The stopes in the back of the 117 fm. level south are much improved—No. 1 yielding 5 cwts.; No. 2, 12 cwts.; and No. 3 and 4, 8 cwts. each per fm. The 106 fm. level is being extended south by the side of the lode, which has not been taken down during the last month; there are three stopes in the back of this level—No. 1 being worth 8 cwts.; No. 2, 5 cwts.; and No. 3, 6 cwts. of ore per fm. The 94 end is suspended for the present, and it will not be resumed until we have cut the lode in the 82 fm. level; there are two stopes in the back of this level, each worth 12 cwts. of ore per fm. The cross-cut in the 82 fm. level has not yet intersected the lode, but the end is getting wet, and there are other indications of our being near to it. I am glad to say the mine is looking much better than for some time past, and we are in consequence enabled to increase the returns to 65 tons per month, with every probability of maintaining the same. Our sampling on Saturday (Feb. 5) was 65 tons, the tenders for which which will be received on the 16th inst. We were somewhat pressed for coals last month, owing to the non-arrival of our usual supplies, but did pretty well, and have not incurred much extra expense.

HILL BRIDGE CONSOLS.—The work is proceeding satisfactorily; and the lodes, both in Barclay's shaft and in the adit, look well.

HINGSTON DOWN CONSOLS.—The prospects here continue much the same.

HOLMBUSH.—The ground at Hitchins's engine-shaft, sinking below the 145, is in congenial killas for mineral. The ground in the 145 cross-cut, south of the above shaft, is in soft light blue killas. The lode in the diagonal shaft, sinking below the 145, is 1 foot wide, producing stones of copper ore of good quality; the lode in the 145, east of the said shaft, is 6 inches wide, producing stones of ore; in the western end in this level we have at last intersected the eastern side of the great cross-course. The lode in the 132 south is producing stones of lead; the ground in the 132 south, to cut the south part east of the diagonal shaft on the main, or Holmbush lode, is very soft. The Flap-jack lode in the 120, east of the cross-course, will produce 2½ tons of ore per fm. The lode in the 110 east will produce 6 tons of low-price copper ore per fm. The lode in the western end, from Wall's engine-shaft, is 4 ft. wide—saving work of low quality. The lode from the bottom of the winze, driving east towards the above-mentioned end, is of a similar character. The two cross-cuts, extending north and south of Wall's engine-shaft, are progressing in a favourable manner. The tribute department is looking well, which you will perceive from the setting list.

LAMERTON UNITED.—The lode in the adit level is more strongly stained with the oxide of copper ore than before, and getting larger as we gain in depth. I have set the end to six men, and hope in a short time to be able to give some more information about this promising lode.

LEEDS TOWN CONSOLS.—We have been a little delayed in our progress with the adit, the ground having become harder; this, however, does not make our work more expensive, as we use less timber in consequence; we hope to accomplish our object in about the time mentioned in my last report. Our engine-shaft is still being sunk by nine men, at 5*l*. per fm.; it is now down about 10 fms.—ground and water much the same as last reported. The engine-house has now progressed to the surface floor, which is the level of the top of the large cylinder. The rainy weather has much retarded the mason's work. The walls of the smith's shop are finished, and we are now putting the roof on it. The vessel, with the engine on board, has arrived at Hayle, and we have already got a portion of the engine on the mine, and expect the whole by the early part of the week.

LYDFORD CONSOLS.—No alteration since last report.

MERLLYN.—The winze sinking under the 26 fm. level, east of Garden shaft, is much the same as last reported—lode worth about 12*l*. per fm. The 36 fm. level, driving west of cross-couse, on south lode, is holed to shaft; a few days is required to enlarge the old level, when we shall resume the 26 fm. level west of the old shaft; this end is but a short distance from the north and south lode, and will be quickly intersected; the ground in the last fathom or two being much easier for driving. The lode in the 16 fm. level, driving west of the cross-course, on north and south lode, is 5 ft. wide, the bottom of the level producing fine stones of lead, and has the appearance of being the top of a good branch of ore; the lode in the back of the level is mixed with clay and slate: the 26 will shortly give this a trial. We shall sell 60 tons to-morrow.

MOLLAND.—The lode in the 52 east is 3 ft. wide, composed of capel and ore, worth 4*l*. per fm.; in the same level west the lode is 3½ ft. wide, producing stones of ore. The lode in the 42 west is 2 ft. wide, producing good stones of ore, and looking kindly; in the same level east the lode is 4 ft. wide, at present poor and unproductive; the lode in the stopes in the back of this level is worth from 7*l*. to 8*l*. per fathom. The lode in the 30 west is very large, with occasional spots of ore; ditto east, the lode is 3 ft. wide, producing stones of ore. The lode in the winze is much the same as last reported. The lode in the adit in the eastern hill is 2 ft. wide, producing good stones of yellow ore, mixed with occasional spots of grey ore. I hope to have against Wednesday next 30 tons of ore at surface, which, when dressed, I intend having sent to Barnstaple, to be shipped for Swansea.

NANCEKUKE.—The 28 fm. level, south from Valley shaft, has continued to lay open good tribute ground for lead, with every prospect of continuance. No change of importance in other places. The cross-cut in the 40 is progressing rapidly towards the lode, and the shaft is now in course of sinking below the 40.

NANTLLE VALE (SLATE).—The following report of the purser (Mr. Bacon) was submitted to the committee of management at their last meeting:—In conformity to the wish of the committee, I visited the Ty Mawr Quarries on the 20th ult., and spent several days in examining the progress of the works since my last visit in November. I found a considerable portion of the surface had been removed on the north and western sides of the western quarry, in some parts to the depth of 7 or 8 yards, and that a large portion of good slate-rock was now available. In the south-western part of the quarry some excellent blocks were being removed, and made into the larger kind of slates, denominated "queens" and "princesses." On examining the cost-sheets for the past three months, it appears that the slate manufactured will give a profit of nearly 50 per cent. on the immediate outlay at this portion of the works, but as the expenditure has principally been confined to the removal of surface, the full benefit of the outlay cannot be realised until the removal of the water. A considerable portion of good workable slate-rock is now uncovered, and can at once be removed as far as the second floor, which is about 18 yards from the top. On the return from my former visit, I reported that I considered the commencement of a tunnel to drain off the water in the western quarry of paramount importance. The original proposal was to have the tunnel driven 100 yards through the rock, which would only have given from 3 to 4 yards additional depth from the present bottom of the western quarry; but after a careful survey of the declivity of the land, I found the extension of the tunnel about 150 yards across the field would give an additional depth of 7 or 8 yards; and although the carrying of the same into effect has been attended with an expenditure of nearly 50*l*., and retarded the drainage of the water for two months, yet this additional depth will be found invaluable in the future workings, as you will then have (after alloting two-thirds for refuse and broker material) about 20,000 cubic yards of slate-rock of the most valuable character to work upon, and which will be the more readily worked from having been covered with water. The tramway at the eastern quarry is now completed, and men are actively employed in removing rubbish from the bottom, which had been deposited there in consequence of the former tenant of the property having no space to put it beyond the vein. A contract for the removal of the rubbish has been entered into for 25*l*., and in the course of two months this quarry will be fully cleared, and slatemakers can be set on to work the rock at the bottom and southern sides, and good returns may be safely expected. At 120 yards from the eastern quarry a shaft has been sunk, and at a distance 6 or 7 yards from the surface good rock is found, which proves the continuance of the vein at this distance. As there is a fall of 30 yards from the bottom of the western quarry to the top of the Nantlle Lake, it would obviously be the best plan to work the quarry from this shaft in the direction of the eastern quarry, and the rubbish could be readily thrown into the lake, as done by the quarries on the opposite side. It will be seen from the preceding statement, that upon the productive part of the quarry a good return has already been made, and taking into consideration that a considerable portion of the month of November was taken up in laying tramways and making preparations for commencing the works, and that during the two months which you have been working unprecedented falls of rain have occurred, and that the money already expended has been principally in removing the surface, the benefit of which will be seen in the returns of each succeeding month. I cannot but think the progress of the works has been perfectly satisfactory. There can be no question the unfavourable period of the year at which you commenced the works, the shortness of the days, and the constant falls of rain, have greatly militated against your success, but judging from the extent of rock uncovered, there is every prospect of the future returns being profitable. Having regard to the unprecedented demand for slate in the market, and the high prices which it now realises, I consider it advisable that the works at the eastern and western quarries should be prosecuted with every possible dispatch; and, from a diligent enquiry and careful survey, extending over a period of several days, I cannot but confirm the opinion entertained by your manager—that the workings will be remunerative before the completion of the tunnel.

NEW EAST CROWNDALE.—We have driven north in the cross-cut in the 42, and ascertained the width of the lode to be 12 ft., composed of mundic, spar, peach, and prian, impregnated with spots of copper ore and lead, very similar to the same lode opened on to the west in the Crebor, Crowndale, and East Crowndale Mines, being over western boundry; here they have a course of copper ore of rich quality, worth from 40*l*. to 50*l*. sterling per fm., the lode being possessed of the same characteristics in New East Crowndale at about the same depth. I cannot see the slightest doubt of successful results emanating from further development of the lode in depth as well as extension. In the present 42, which we have driven 12 fms. east of engine-shaft on the north part, but cut into it, as was thought advisable, to ascertain its properties and continuance in width, as we proceed east the lode appears to be more collected in itself, and from the fine appearances of the gossan, and the other component parts in the 14, we are likely to be successful in the further exploration in that direction. We have sunk the engine-shaft 3 fms. under the 42, and are now busily engaged putting in the necessary pitwork (plunger) to facilitate our future operations in the most systematic, economical, and practical order, to prove which, I hope, and doubt not, profitable results will follow.

NORBURY.—We are progressing more favourably with driving; and I expect we shall cut the lode by the end of the month.

NORTH BASSET.—The lode in the 92 fm. level, west of the new shaft, is 2 ft. wide, worth 20*l*. per fm. In the 82, west of new shaft, the lode is worth 35*l*. per fm. We have holed the winze from the 82 to the 92 fm. level—lode 2 ft. wide, worth 40*l*. per fm. In the winze below the 72, west of new shaft, the lode is 3 ft. wide, worth 20*l*. per fm. All our tribute pitches are looking well.

NORTH DOWNS.—The lode in the 90 fm. level is 18 in. wide, with stones of ore; in the rise above the said level the lode is 1 ft. wide, with stones of ore. In the 80 fm. level east no lode taken down this week; in the winze in the bottom of the said level the lode is 15 in. wide, with stones of ore. We have also set two pitches this week at 12s. tribute. I expect to sample from this mine on the 15th inst. about 55 tons. The water has prevented our getting up the ore in this mine.

NORTH WHEAL ROBERT.—I forward you my estimate, as near as I can judge, by the driving of the 30 and 42 fm. levels; I take the ordinary way of calculation, as there are no winzes sunk, or rises yet put up to any extent, to open and divide the ground. In the 30, west of Murchison's shaft, there is ore ground, more or less, for about 15 fms. in length, 5 fms. above and 5 below—150 fms. at ½ ton to the fathom, =75 tons. This part of the lode is mixed with a great quantity of iron, worth at present standard of copper ore about 7*l*. per ton; from that point to the present end is nearly 20 fms. in length—5 fms. above and 5 fms. below=200 fms., at 2 tons, per fm., worth at present standard of copper ore 10*l*. per ton. At the 42 they have driven a short distance in two or three places through ore ground which, at the same valuation, is worth about 200*l*. We have 40 tons or more at surface, which I hope to sample on Feb. 25, weather permitting. I think we can sample about this quantity every two months. The lode in the 30 end, west of Murchison's shaft, is 7 ft. wide, yielding fully 1 ton of good quality ore per fathom. Our stopes in the back of this level are looking well, worth 2 tons of good ore per fathom. The 42 fm. end is just as last reported, about 2 feet wide, saving work.

OLD WHEAL BASSET.—The lode in the winze sinking under the adit, west of Martin's shaft, is 12 inches wide, and will turn out 1½ ton of per fm. In the 20, east of the last new shaft, the lode is 18 in. wide, with mundic and spots of ore. A tribute pitch is working in the back of this level at 10s. 6d. in 1*l*.

PORSEDD.—The lode in the 10 fm. level driving east is divided, the largest portion running more south, which is no doubt the oblique lode driven on in the 30, where we have a good lode of lead for near 20 fms. driving; the lode in the 10 fm. level is about 3 ft. wide—very promising, at present containing but little lead; the lodes are very changeable at this level, it being so near the surface; the east and west lode is about 1 ft. wide, at present without lead, and not so promising as the oblique lode, which is also the case in the 30 fm. level. The oblique lode has not been discovered in the 20 fm. level; as soon as the water is lowered a little in the engine-shaft, we shall drive to intersect it.

PENLLYNE.—The 16 fm. level, west from upper shaft, is looking better, and produces a good strong course of lead ore, and the 15 fm. level is also better than I have ever seen it; we have found the foot, but not the hanging wall. The water is very strong in this pit, still we are able to sink it at 4*l*. per fathom. I have set the 16 fm. level at 4*l*. 10s., and the 15 fm. level at 4*l*. per fathom.

PEN-Y-GELLI.—The lode in the engine-shaft, sinking below the 10, is about 5 ft. wide, producing very good lead, and opening ground that will work at a low tribute. The lode in the 10, driving east, is about 4 ft. wide, opening tribute ground; the 10 west has not yet resumed driving; the back of 10, which last month worked at 4*l*. per ton, is now let at 3*l*., to as many men as can conveniently work.

PENZANCE CONSOLS.—Slater's shaft is now 6 feet under the 30 fm. level, in a large lode, and very tinny. The lode in the 30 end, west of this shaft, is much as last reported. They are raising large quantities of stuff from the back of the 24; this level is looking better, and there is some tolerable stuff raising from it, and if the stamps could keep pace with it a number of men could advantageously stope away in the back of the 30, but they will be put to sink instead. We are getting out the ground for the bob to apply the flat-rods to Slater's shaft, and in the other departments of the work the men are busily employed.

PONTERWYD.—The engine-shaft is in a good course of sinking below the adit level, but the water is becoming very quick, and I fear we shall not be able to sink far without the aid of our machinery. We are now commencing to erect a horse-whim on this shaft, for the purpose of hauling, &c. The lode in the shallow adit level, 160 fathoms east of the engine-shaft, is 8 ft. wide, with a very promising appearance, yielding a little ore, which is in a mass of gossan. The wheel-pit is nearly completed, and the surface work is getting on as fast as possible.

PRIGNANT CONSOLS.—*Jan.* 27.—Capt. Matthew Francis, in company with the manager of the Baden Mines, having again inspected these mines, has furnished the following report:—"I find the grant all that could be desired, the lode running throughout the sett from east to west, leaving its mark clearly on the surface; and its line is distinctly seen to cover the machinery at Frongoch, East Frongoch, and Graigoch. The lode has been just found at a new point 150 fms. north-east of Prignant Issaf Farm House. The trench is 10 ft. deep, and the lode contains a beautiful gossan. So satisfied am I with the whole prospect, that I propose commencing an adit level to cross-cut the lode near the Prignant House. We shall then have by driving 50 fms. full 15 fms. of backs. I expect this level, when driven up to the lode, will cut a vein that will yield very considerable quantities of lead; and I rest with perfect confidence on my oft-repeated assurance, that we shall lay open a mine sufficiently valuable to satisfy all that feel truly interested in our success. I am glad to add that all the work that has been done on the mine has been successfully and properly executed, and that the funds of the company have been economically used, and have produced such results as I could reasonably have expected. I shall continue to recommend a prudent use of our capital; but when we have discovered such ground as will warrant it, I shall advocate the employment of the greatest number of miners that can be brought to bear upon it with advantage."

— *Feb.* 3.—Since my last visit to the mines, we have opened more extensively upon the lode in the deep trench; and I am happy to say that it is now assuming a very favourable appearance—being better defined, and carrying a fine gossan for about 3 ft. wide. We shall start the adit level on Monday next.

RATLINGHOPE.—The men have performed about half their contract this month in opening the deep level.

RITTON CASTLE.—We have commenced sinking the shaft between the two lodes which I expect will form a junction in depth.

RIX HILL.—The lode in the 28 fathom level, driving west, is still strong and promising, composed of peach, spar, white iron, and spots of copper ore. The lode in the rise in the back of the 28, on the new south lode, is producing a little tin, but not enough to save at present. The tribute pitches are without much alteration since my last, except in the case of Bone's pitch, in the back of the 17 east, where the men gave up, but it has been taken by another party at an advance of 1s. tribute. We are burning and dressing our tin for next sampling as fast as we can.

ROUND HILL.—We are happy to inform you that the lode still looks well driving north at the deep adit level, it being about 3 ft. 6 in. wide, yielding rich work for lead ore, we have driven 9 ft. in this direction, and we calculate that out of this ground—viz., 9 ft.—about 2 tons of lead ore are broken, but we cannot get on with the washing at present, the frost being so severe. We have also dialed this to-day (Feb. 9), and find by its bearing and underlay, which is westerly towards the old engine-shaft, that the lode will pass through the shaft about 50 fms. below the adit level, this in all probability is an important discovery, as it has never been seen by the former companies; should this continue it will be advisable to erect a small rotary steam-engine, for the purpose of taking the water out of the shaft (and winding, crushing, &c.), so as to explore the lodes at deeper levels and lay the mine fairly open. No alteration worthy of notice in any other part of the mine.

SOUTH EAST WHITE GRIT.—The shaft is down about 3½ fms., and is without any alteration.

SOUTH TOLGUS.—There is an improvement in the 54, west of Youren's lode, which is now worth 3 tons of ore, or 60*l*. per fm. The 78 east and west is also looking well, yielding from ½ to ¾ of a ton of ore per fm.

SOUTH WHEAL RUSSELL.—Since my last report we have continued to drive both cross-cuts in the 25 fm. level; in the cross-cut south we have met with some branches of beautiful yellow ore, and from the altered appearance of the ground, having more ore interspersed in it, we think the lode cannot be far off; in the north cross-cut we find more mundic, and I hope in my next to report favourably of both these ends. For the present we have discontinued driving the adit level north for want of air, and to remedy this have commenced raising to surface from the back of the level.

TAMAR SILVER-LEAD.—In the 215 end the lode is 6 in. wide, composed of capel and mundic, with spots of ore. In the 205 end the lode is 1 foot wide—good stamps work. In the 190 end the lode is 18 in. wide, unproductive. In the 175 end we have cut the south slide, which has disordered the lode. In the 160 end the lode is 1 foot wide; good saving work. In the 145 end the lode is 18 in. wide, and yields work of good quality. At the north mine, in the 100, we are cross-cutting west, as we find, by sinking a winze in the 90, that the lode is underlaying west, from the appearance of which there is about 9 feet more to drive to intersect it. In the 90 end the lode is 2 ft. wide, and opening profitable ground. In the 80 end the lode is 3 ft. wide, 6 in. of which is rich work. The stopes in the back of the 90 are turning out well, and will yield, on an average, 11 cwts. of rich silver-lead ore per fm. We sampled on Saturday, 5th inst. (computed) 98 tons, samples of which have been sent to different smelters.

TAVY CONSOLS.—The mine has been improving ever since I wrote you last week. The lode in the 46 driving east is worth from 100*l*. to 130*l*. per fm.; driving west is worth from 100*l*. to 120*l*.; the stopes in the back are worth at least 100*l*., and a most splendid lode gone down. They will raise 70 tons in the old pitch, and 30 tons in the stope in the bottom of the 36, by the next usual sampling. You may be assured of this, and you may make what use of it you please.

TINCROFT.—Highburrow tin lode, in the 152 east of engine-shaft, is 4 feet wide, worth 11*l*. per fm.; since last report we have communicated Martin's east shaft with the 152, where we have employed 16 men to stope east and west; the lode is 5 ft. wide, worth 14*l*. per fathom for tin. In the 142, east of said shaft, the lode is 3½ ft. wide, worth 8*l*. per fathom for tin and copper. The stopes in the back of the 132 are worth 9*l*. per fathom. Chapple's lode, in the 142 driving west of engine-shaft, is 2½ ft. wide, worth 6*l*. per fathom for tin and copper. In the 120, driving west of downright shaft, the lode is 3 ft. wide, producing saving work. In the 110 west the lode is 3 ft. wide, worth 9*l*. per fm. In the winze sinking below the 100 west the lode is 5 ft. wide, worth 15*l*. per fm. Dunkin's lode, in the 110 west of engine-shaft, is 3½ ft. wide, worth 6*l*. per fm. for tin. In the east end of the same level, the lode is 2½ ft. wide—saving work for copper. The stopes in the bottom of the 100 are worth 10*l*. per fm. for tin and copper. In the 90, driving west on the south part, the lode is 2 ft. wide, worth 7*l*. per fm. for copper. At North Tincroft, the lode in the 130, driving east of engine-shaft, is 2 ft. wide, worth 20*l*. per fm.; in the west end of the same level the lode is 2½ ft. wide, worth 6*l*. per fm. In the 120 east the lode is 3 ft. wide, worth 10*l*. per fathom; in the west end of the same level the lode is 2½ ft. wide, worth 18*l*. per fm.; in the winze sinking below this level the lode is 4 ft. wide, worth 80*l*. per fm. In the 110 driving west the lode is 3½ ft. wide, worth 14*l*. per fm.; in the winze sinking below this level the lode is 4 ft. wide, worth 8*l*. per fm. In the winze sinking below the 100, west of the said shaft, the lode is 4 ft. wide, worth 30*l*. per fathom.

TOKENBURY CONSOLS.—The ground in the rise is still favourable: the men have taken a bargain to rise 10 fms., at 4*l*. 4s. We intend to commence sinking next week. The ground in D shaft is a little softer, the lode producing more mundic, prian, and ore; also yielding more water than when we commenced sinking. We have sunk in all about 10 fms., and hope to see a favourable change before long.

TREBELL CONSOLS.—The lode in the engine-shaft continues to improve in its downward progress. We are obliged to change the position of the rods for this shaft, and shall have to remove the whim. These operations are going on, as well as drawing and spalling—the stuff being raised from the shaft. We hope to sink this month without working the engine, as reported in last report. It is impossible to say whether the lode intersected in the deep adit is Wheal Messer lode or not; but as the end is letting out much water, it will be advisable to drive on further; the ground still continues favourable for driving; the stratum is soft and congenial for mineral.

TRELAWNY.—At Trelawny shaft, in the 120 fm. level north end, the lode is large, with a little ore; in the south end the lode is 2 ft. wide, and worth 8*l*. per fm. In the 107 fm. level north end the lode is 3 ft. wide, and worth 8*l*. per fm.; in the south end the lode is about 2½ ft. wide, and worth 8*l*. per fm. In the 92 fm. level north end the lode is 3 ft. wide, and worth 12*l*. per fm.; in the south end the lode is 3 ft. wide, and worth 15*l*. per fm. At the north mine, at Smith's shaft, to-day (Feb. 8) part of the shaftmen will be employed in cutting bearer holes, &c., and cistern plat, for the purpose of fixing the lift in the 88 fm. level; the cross-cut in this level is extended 9 ft. towards the lode. In the 78 fm. level north end the lode is 3 ft. wide, and worth 8*l*. per fm. In the 68 fm. level north end, west part, the lode is 2 ft. wide, and worth 5*l*. per fm.; the east part is 1 ft. wide, and orey. There is no change in the cross-cut east, in the 55 fm. level. We are sinking a winze in the bottom of the 68 fm. level, south of Smith's shaft, and near Trehane northern boundary, where the lode is 3 ft. wide, and worth 8*l*. per fm.—a promising looking lode. The stopes and pitches are much the same as reported of late. The parcel of ore which we sold on the 28th Dec. last, to the Tamar Smelting Company, computed 75 tons, was shipped yesterday (Feb. 7), it weighed 76 tons 15 cwts. 3 qrs.

TRELEIGH CONSOLS.—We are now in a regular course of working, and drawing from the 90 fathom level. We shall sample on the 15th inst. from 70 to 75 tons. Since the setting on the 28th January, we have set two more pitches at 12s. All the pitches in the 90 are in regular working.

TYN-Y-WORGLOD SLATE QUARRY (NORTH WALES).—The following interesting report has been received from Mr. Jennings, the agent of this quarry:—He says, I cannot conceal the pleasure I feel in being able to communicate what I am sure will be gratifying intelligence to the shareholders. This morning I gave the men some powder to blast away some of the spar in the lower tunnel; the first blast brought to view some of the finest rocks of beautiful green slate, good colour, even grain, and large size, that has ever been raised from any quarry; it possesses the quality so rarely to be met with in slates of this colour, and which many of the quarry agents expressed their fears it was deficient of—viz., the capability of being split; this will split to the thickness of a shilling. I shall be happy to send some specimens for the shareholders to see. The further we get from the vein of spar, the better the slate will be.

UNION (TIN).—The end driving west on the great lode is soft and easy for driving, but we are allowing the greater part of the lode to the south to stand, it being too wide to open until the ground is drained; the character and produce of the lode is as good as ever. We have not driven much this week towards the new shaft. The men have been taking down some of the lode in the back of the level to keep the stamps going. We have opened about 2 fms. on the caunter lode, and find it 6 or 7 in. wide, producing good tin. We shall be able to report more fully on this lode in a week or two. On the whole, the prospects are highly satisfactory.

VALE OF TOWY.—Clay's engine-shaft is down 10 fms. 3 ft. below the deep adit, in which there is a lode 1½ ft. wide, intermixed with good lead, the underlay being about 2½ ft. in a fm. We think that the main lode is still to the west; as, according to the underlay at the adit, which is about 1½ ft. in the fm., from the length of the cross-cut at the adit it could not come in the shaft as yet. We set on Saturday last—Clay's engine-shaft to drive a cross-cut from the bottom west at a 10 fm. level, to see what more lode there is yet to the west, 2 fms., to eight men, at 70s. per fm.; a new winze to sink on the lode under the adit, north of said shaft, 4 fms. to six men, at 35s. per fm.—Nant Shaft: The deep adit end to drive south; the lode is 2½ ft. wide, producing stones of lead, to two men, at 100s. per fm.; cross-cut to drive west 1 fm., or cut the lode, to four men, at 80s. per fm.—Bonville's Shaft: The deep adit end to drive south on the lode, which is 2 ft. wide, intermixed with lead, to four men, at 30s. per fm.; a cross-cut to drive west 1 fm., or cut the lode, to two men, at 55s. per fm.; to sink a new shaft west of Clay's shaft, to get down on the old mens' workings, to two men, at 10s. per fm.—Field's shaft: A pitch in the back of the deep adit north, at 4*l*. per ton for ore, to two men: making a total of 30 men.

WEST PAR CONSOLS.—I have concluded the long-pending arrangements with the Pembroke and East Crinnis Copper Mining Company, by which we have secured for the remainder of their lease and ours sufficient surface for the erection of necessary machinery, dressing-floors, &c., fully to develope this valuable mining property. The importance of this arrangement to the West Par Consols Company cannot be too highly estimated, which the following will sufficiently prove—viz., the south-east boundary of the West Par sett, known as the Blue Gate sett, has been acknowledged by all miners to be one of the best pieces of mining ground in Cornwall, through which the East Crinnis and Par Consols lodes undoubtedly run, in the same congenial strata which produced such immense quantities of copper ore from those mines, and which are running from the east to the west boundary of West Par Consols sett. It is also parallel, and within half a mile of the Great Crinnis Mine, which produced, in less than 20 years, 1,400,000*l*. worth of copper. The North Pembroke (which is about midway between Great Crinnis and West Par Consols) was equally rich; therefore, it cannot be doubted that the several lodes being directly parallel, and intersected by the same cross-course that proved so favourable in the adjoining mines, and the same lode made, and still making, immensely rich to the east, and proved to be orey and promising to be profitable to the west. By this arrangement with the Pembroke and East Crinnis we are enabled to develope it immediately. This property has not been previously worked, owing to Col. Carlyon objecting to have a shaft at work within the boundary of his park and lawns, through which the lodes run; but by the proposed arrangement, a diagonal shaft passing under the turnpike road to St. Blazey, will intersect them in a few months, and as much ores were found in the adjoining mines as shallow as 20 or 30 fms. from surface, it is anticipated the same results will be found in this mine. The new powerful engine purchased, and about to be erected by Mr. West, will pump the mine, draw the stuff, and crush the ores to a great extent, and will shortly be at work. We have commenced sinking the shaft, and shall continue it with all possible speed. I hope this explanation will be satisfactory; I have not over-rated the advantages of this fortunate arrangement, and should be glad if circumstances would allow me to take a larger portion of shares.

WESTON.—The men have driven about 3 fms. in Cross's level this month; but the water has not yet abated sufficiently to allow us to reach the back of the lode, which looks of a favourable character. At Cwm Dingle, the men have driven 7 fms. without any alteration. We are progressing with No. 3 shaft. The Village lode is of a promising nature; the ore improving as it goes down.

WEST WHEAL EDWARD.—We have commenced shoding in the western ground belonging to the sett, and have opened on a lode about 2 ft. wide, composed of gossan and spar. In consequence of the late heavy rains and snow, we are debarred from sinking on it. We are continually meeting with fine stones of shode, which clearly shows our approach to another lode north. I have put two men to drive on the south lode, which is a very promising looking one. I hope to inform you more particularly in my next, as we have not done sufficient on it to mention.

WEST WHEAL FANNY.—There is no alteration since last report.

WEST WHEAL RUSSELL.—Since my last report we have completed sinking Richards's engine-shaft to the 75 fm. level, and shall commence driving west on the course of the lode shortly. There is no alteration to report on the cross-cut in the 60 fm. level. Since my last, we have taken down the lode in the 60 fm. level, and find it not to answer the expectations we had of it; we are continuing to drive the level but the lode is not rich, the ground is becoming more favourable, and I hope to forward you a better report of the lode in my next. We have not taken down any of the lode in the 37 fm. level since I last wrote to you. We have continued to sink Bayly's shaft, but there also have not taken down the lode; we have cut into the lode at different places, and found good stones of ore. In the adit level west the lode is showing more gossan, with occasional stones of ore.

WHEAL ARTHUR.—North Lode: The lode in the 50 west is 8 feet wide, producing 3½ tons of yellow copper ore per fm., worth 8*l*. 10s. per ton; the lode in the 50, east of great cross-course, is 2½ ft. wide, containing stones of ore—disordered by a slide at present. The lode in the 35 west is 6 ft. wide, yielding 2 tons of ore per fm., worth 9*l*. per ton. Broom's winze is stopped for want of suitable men. The lode in Cruse's stope in the bottom of the 35 west is 4 ft. wide, yielding 3½ tons of ore per fm., worth 9*l*. per ton. The lode in Cock's stope in the back of the 35 west is 5 ft. wide, producing 2 tons of ore per fathom, worth 9*l*. per ton. The lode in Hartland's stope in the back of the 35 west is 4 ft. wide, producing 1½ ton of ore per fm., worth 8*l*. 10s. per ton. The lode in Burgess's rise and stope in the back of the 35 east is 3½ ft wide, producing 1½ ton of ore per fm., worth 8*l*. 10s. per ton. The lode in the 20 west is 6 ft. wide, unproductive. In the cross-cut south from the 35 east we have intersected some small branches, and expect to cut the lode daily. There is no change in the cross-cut south, on the lead lode, in the 50 fm. level. We cut several branches in driving the cross-cut south in the 50 fm. level, and have driven several fathoms upon the south or largest branch, but nothing of consequence has been discovered as yet, except the lead lode, and having a small branch about 35 fms. behind, or north of, the above branch driven upon; we have commenced driving west upon it, and find it is becoming gradually larger, being now 1½ ft. wide, with good yellow copper ore from top to bottom, worth 1 ton per fathom. We are of opinion that this is the long-looked-for great south lode; time and perseverance will prove it. The ground is full of branches, and the present operations are in the immediate vicinity of two cross-courses. The ground in the 50 fathom level cross-cut north is favourable; we have driven 6 fathoms during the last month.

WHEAL AUGUSTA.—In Wheal Augusta lode, there is no improvement since last report; but it still holds good. On the guide the lode is much improved in quality. To-day (Feb. 7th) they broke some fine solid stones of tin there. The branch spoken of in last report is lengthened 3 to 4 fms., and is of good average quality. The 10 end in the engine-shaft is also looking well.

WHEAL CATHERINE.—The lode we have discovered in the shaft is 3 ft. wide, composed of spar, flookan, mundic, and good stones of lead, 2 feet of which is saving work. In searching in the adit level for the north and south lode, which is upwards of 20 ft. wide, discovered in making the road, we have found an east and west lode, 20 in. wide, containing spar, mundic, gossan, and spots of lead.

WHEAL CREBOR.—We are forking the water to Cock's; if things go on well we shall have it out to the 24 fm. level in a fortnight at least. Our tributors continue working with spirit, and the pitches good. We shall have several tons of ore more these two months than we ever had in the same time; there is also every appearance of increase. In the past week we let the shallow adit, or late 40 fm. level, to drive west on the north lode to four men, at 5*l*. 10s. per fm. (stented 2 fms.); as soon as their contract is complete, we intend to let a cross-cut to drive south, as the lode the tri-

butors are raising their ore from is to the south of the present driving in this level; we let a rise to the back of the above level to two men, at 4*l.* per fm. (stented 2 fms.); as this is whole ground on the course of the lode 50 fms. high, and promising to be productive of large quantities of ore, we intend as soon as circum stances permit, to try to get the water out of a winze sunk on the Georgiana lode, below the tunnel level; I have been informed that there is a very promising lode in this winze. We also intend clearing a level driven a short distance on the Great Bucktor lode, and other lodes that ought to be opened on.

WHEAL FANNY.—The old engine-shaft we have sunk 3 ft. 1 in., making altogether 6 fms. 1 ft. 7 in. below the 19 fm. level; the ground is a little softer for sinking. On the caunter lode we have driven 1 fm. 5 ft. 6 in.; the lode is still small, but promising, composed of sugary spar, mundic, and small stones of rich copper ore, and carrying a beautiful white killas, of a very congenial character for mineral. The cross-cut we have driven 8 fms. 4 ft. 7 in.; we are progressing as fast as eight miners and four labourers can possibly do. We are now within the hearing of each other from shaft to cross-cut, and I hope to cut into a good lode before I write you again. My opinion is still the same as ever. I think, from such a fine lode as we have here, no doubt can be entertained that we shall have a rich and lasting mine. We have had a very troublesome mine to contend with, costly for timber, and plenty of water, but which I consider a good indication in a lead mine, and trust it will prove so here.

WHEAL FORTUNE.—Since my last we have timbered and cased down the shaft, put down the footway, cut the plat, sollared over the shaft, and commenced driving west. We hope to give you more particulars of the character of the lode in our next.

WHEAL GRENVILLE.—We have holed Taylor's shaft to the 40 fm. level. We shall commence next week to case down the shaft from the 25 to the 40 fathom level, after which to cut a plat in the 40. We have met with an elvan course in the 40 fm. level, which has rather split up the lode. We have suspended this end until we have cased down Taylor's shaft and cut the plat in the 40, and have put the men that were in the 40 end to strip down a piece of lode standing to the west of the winze sunk from the 25 to the 40, where we had some good stones of ore in driving the 40 fathom level. The lode in the different levels has much the same appearance as last week—kindly, but poor.

WHEAL LANGFORD.—Since my last we have driven the cross-cut south of Daw's shaft, in the 20 fm. level, 7 ft.; the ground is rather stiffer at present. In the 20 east, on the course of the lode, we have driven during the past week 10 ft., where the size and character of the lode is just as last reported. The stopes also in the back of this level are without any particular alteration. The stopes in the back of the 10 fm. level are yielding good stamps work. From the stopes on the silver lode we have broken, during the past week, six bags of silver ore of moderate quality.

WHEAL MARY ANN.—The lode in the 100 fm. level, north of Pollard's shaft, is 3 ft. wide, and worth 6*l.* per fathom; in the same level south it is 2 ft. wide, and worth 8*l.* per fathom. In the 90 fm. level north the lode is 2 ft. wide, and worth 5*l.* per fathom; in the same level south it is 2½ ft. wide, and worth 10*l.* per fathom; in the winze sinking under this level the lode is 2 ft. wide, and worth 10*l.* per fm. In the 80 fm. level north the lode is 3 ft. wide, and worth 7*l.* per fathom; in the same level south it is 2½ ft. wide, and worth 7*l.* per fathom. In the 70 fm. level south the lode is 2 ft. wide, and worth 6*l.* per fathom; in the winze sinking under this level south the lode is 1½ ft. wide, and worth 5*l.* per fathom. The stopes and pitches are producing much as usual. We sampled this day (Feb. 9), two parcels of lead ore—viz.: No. 1, computed 54 tons; and No. 2, 57 tons.

WHEAL MAY.—The lode in the 30 fm. level, east of the shaft, is 20 in. wide, consisting of soft white spar, carbonate of iron, and mundic, with spots of ore interspersed; this level is taken to drive by four men, at 4*l.* 4s. per fm., at which price they can get fair wages; the country around the lode is more mineralised than I have seen it for some fathoms in driving. The stopes in the bottom of the 20 fm. level are at present poor, but from the appearance of the lode, I consider it will become productive again; the ground is very favourable for breaking—it is taken by two men, at 2*l.* 5s. per fm.

WHEAL PERU.—The lode in the deep adit, driving west, is very promising, but still in the gossan. The prospects of the lodes generally that have been discovered in the sett leaves no doubt on our minds as to their value when proved in depth; and have no hesitation in stating that this mineral property, in point of prospects, is without a parallel in these parts.

— Feb. 8.—We are getting on with all possible dispatch in clearing the foundation for the engine-house, and hope to be ready to commence building shortly; it has been let by tender at 1s. 10½d. per perch. The lode in the deep adit, driving west, is much the same in appearance as reported in our last.

WHEAL ROBERT.—Having forked the water in the 12, I have placed two men to stope on the lode, which is about 2½ ft. wide. East of Collier's shaft we have taken out some fine stones of yellow copper ore and lead, and we hope, by continuing, to have a greater discovery in this part of our mine. As the 12 is full of refuse stuff, from the old workings, our men are hauling day and night to make a clearance, as I intend to put four men to work in the back of the 12, west of engine-shaft. At the east adit end the lode is large, consisting of tin, capel, mundic, iron, and spar—ground favourable for driving.

WHEAL RUSSELL.—We have sunk Richards's engine-shaft to the 75, and have commenced driving east of it by the side of the lode. The lode had just the same appearance when we commenced driving as it has been reported at the shaft, but we have not taken down any of it in the level. There is no alteration in the cross-cut in the 60. We are still driving through the lode at the 48, which continues very hard, and our progress is consequently slow; we find mundic and strings of ore in the lode. In the rise in the 37, towards the new engine-shaft, the lode is 2 ft. wide, nearly the whole of which is solid copper ore, worth more than 60*l.* per fm.; we put up this rise for the purpose of ascertaining the underlay of the lode, and have fixed on the place for sinking the shaft, which we have now commenced from surface; we shall also rise from the 37 towards the shaft. The pitch continues the same.

WHEAL SAMSON.—We are still driving the north and south lode, therefore none of the lode has been taken down since last report. We expect shortly to get near another bunch of silver, as some branches are again appearing to fall in.

— Since sending the above report, I find by an assay that some of the ores sent from this mine, which were supposed by the captain to be silver, are grey copper, with silver. I, therefore, hasten to correct the previous impression—being aware that no sales had been effected, but that some were pending.

WHEAL SIDNEY (PLYMPTON).—A very great improvement has lately taken place in this mine. East of Derrick shaft, in the 23 fm. level, from 350 to 400 fms. of fine tin ground have been laid open, the western stopes of which, now taking down, are of very rich quality, the lode being 5 ft. wide, and there is every reason to believe this lode will prove to be equally rich throughout; the air at the eastern extremity being now too impure for the men to continue driving, they are rising in this, and sinking in the adit level, to hole and ventilate; when the eastern end will also be stoped, and driving continued. The adit level, west of Derrick's shaft, has been driven 18 fms., carrying tin of rich quality throughout, worth at least 20*l.* per fathom, improving in an extraordinary manner. In stoping down towards the 23 fm. level, the lode is 3½ ft. wide, within 2 fms. from the bottom of the adit, being worth full 40*l.*, still further improving as they deepen. The 33 fm. level is now driven home to the Derrick shaft, in which they are now sinking to hole and ventilate the 33; this will be completed in the course of the present week, when the men will recommence driving there, and when they may daily expect to fall in with the rich shoot of tin ground immediately above, in the 23 fm. level; the lode in the 33 is 4 ft. wide, being of a most promising character, composed of very rish gossan, mundic, spar, flookan, and capel; the water bubbling up from the bottom, and issuing in large streams from the end. The 12 heads of stamps are in full work, night and day, and the increase of tinstuff becoming daily so great, that an additional 24 heads of stamps will soon be required to keep pace with the stoping. At the end of this month they will sample about 10 tons of first quality tin, and similar quantities in each succeeding month, until the additional stamps are erected, when the sampling will be much greater; little doubt can, therefore, exist of its soon becoming a dividend-paying mine, inferior, perhaps, to few. In the course of this month they will commence sinking 12 fms. deeper, where it is expected they will be joined by the south lode, whose underlay is in this direction, in which case the produce will be great indeed.

WHEAL UNITY.—There is no change in the general features of our operations at this mine since last week. The water is still up to the 50 fm. level; we are repairing the pumping-engine, and when this and the pitwork are completed, we shall quickly fork the water to the bottom levels. The surface operations are going on as usual.

WHEAL WILLIAMS.—In the north engine-shaft the lode has been cut through, which is about 4 ft. wide, composed of hard capel and mundic, with occasional spots of copper ore. The cutting of the plat is complete, and the shaftmen are how engaged in sinking below the 30 fm. level.

WHEAL ZION.—I did not report last week, because we had not penetrated the great lode at the point of conjunction with Hambly's branch; since then we have done so, and an important improvement is the result. The great lode for full 2 feet is good saving work of rich quality ore, but we do not think we have reached the body of the ore yet, from the gradual improvement, as we advance; two days ago the leader was a small vein of 2 in. wide, now we have three leaders all tending towards each other, and much larger as they approach. This morning (Feb. 10), we cut into the great lode a little to the north of the end, and came upon fine beautiful gossan; we had several large stones of it broken, which we found to contain a quantity of brilliant yellow ore, which by assay produces 21¾ for copper; we have not yet seen the north side of the lode here, and therefore cannot report upon it. We are looking for further improvement to report next week. The shaft is much harder than last reported, but we hope to commence driving some part of it next week.

YEOLAND CONSOLS.—We have a piece of lode between the 12 and 24 fm. levels, about 40 fms. long, which, taking tin at 55*l.* per ton (our last price was 66*l.* 15s.), is worth between 5000*l.* and 6000*l.* The same calculation will, in all probability, stand good (and I believe better) with the 36 fm. level, in connection with the 24, to say nothing of what may be found in the farther extension of your levels and in depth. Then we have the back of the 12 towards the adit, where the rise is now going up, and cutting out profitable ground east and west of it. How far the tin ground may extend eastward, as you must be aware, it is impossible for me to say, but it seems more than probable that you will have a good and lasting mine in that direction, especially when we consider the extensive workings of the ancients; nor do I see any reason to doubt of the lode being found good westward, as at that end of the shaft, in the present bottom, it is more productive than I have ever seen it before.

FOREIGN MINES.

LINARES MINES.—Received from Mr. Henry Thomas:—

Pozo Ancho, Jan. 29.—The engine-shaft has been sunk during the past month 10 ft. and is now down 3 fms. under the 65 fm. level. In the 65, driving east, the men have driven 4 varas 2 ft. 2 in., and have cross-cut 2 ft.; we have set to continue cross-cutting at 450 reals per vara. Before this end we have set a winze to sink under the 55, by four men, at 350 reals per vara; the lode herein is worth 2½ tons of lead in a fm.; this winze will be called St. George (San Jorge). The 65, driving west of engine-shaft, has been extended in Jan. 4 varas 2 ft. 4 in., and is re-set to drive by four men, at 500 reals per vara; the end shows spots of ore, but not enough to value. The 55 is set to drive west of La Casualidad, by four men, at 250 reals per vara; the lode in this end is worth 1½ ton of lead per fm.; the same level, east of Shaw's shaft, has been driven during the month 5 varas 2 ft. 6 in., and is not yet re-taken; the lode at present is unproductive. La Fortuna winze, sinking under the 45, is now nearly down to this level, having been sunk during the month 3 varas 2 ft. 5 in., making a total depth of 23 varas 1 ft.; it is set to hole at 375 reals per vara. The stopes in the 55, between San Anton and Las Nieves, are respectively worth 2½ and 3½ tons of lead per fm. The 45, driving west of San Juan, has been driving during the month 10 varas 2 ft. 8 in., mostly in ground much disordered by a cross-course, which has hove the lode to the left hand on the other side, where we have resumed driving; the lode is more promising, and worth ¾ ton in a fm.; it is set to drive by two men at 150 reals per vara; the 45 fathom level, driving east of La Esperanza, has been extended 3 varas 2 ft. 4 in., and is re-set to drive by four men at 300 reals per vara; the lode in this end is worth 1½ ton in a fm. La Suerte winze, sinking under the 31, in advance of the last-named end, has been deepened during the month 3 varas 2 ft. 2 in., making its total depth under the level 13 varas 1 ft. 6 in.; it is re-set to sink by four men, at 40 reals per vara, the lode being worth 1 ton in a fm. West of San Juan, in the 31, we have driven in Jan., on the north branch, 4 varas 1 ft. 5 in., and have re-set to drive by two men at 240 reals per vara; the lode is worth ⅝ ton of lead in a fm.; the cross-cut, west of San Juan, in this level, has been driven 3 varas 2 ft. 5 in., and is reset to drive by two men 250 reals per vara. The 31, east of Thorne's, on the south lode, has been driven during Jan. 4 varas 1 ft. 9 in., and is re-set to drive by four men at 30 reals per vara; the lode in this end is worth 1½ ton in a fm. Thorne's shaft, sinking under this level, has been sunk 2 varas 1 ft. 1 in., and is set for February at 450 reals per vara; the lode in this shaft is worth 3 tons in a fathom; in the cross-cut driving north, west of the shaft, we have cut nothing additional, but shall continue a little further for satisfactory proof.

The length measured for Jan. is 3 varas 1 ft. 1 in., and the cross-cut is re-set to drive by four men, at 500 reals per vara. On the north lode, driving west of La Esperanza cross-cut, the Jan. driving is 5 varas 0 ft. 7 in., and is re-set to drive by four men, at 200 reals per vara; the lode is worth 3 tons in a fathom. On the north lode, driving east of La Esperanza cross-cut, the men have driven in the month 4 varas 0 ft. 10 in., and have re-taken to drive by four men, at 120 reals per vara. The lode is large in this end, and worth 5 tons of ore in a fathom.

West of La Esperanza, we have set to continue the cross-cut north by four men, at 400 reals per vara. We have driven here on an intermediate branch, running obliquely to both these lodes, 5 varas 1 ft. 4 in., and have re-set to drive by two men at 200 reals per vara. The lode is worth ½ ton in a fathom. In a cross-cut driven from some workings on the south lode, in the back of the 31, and just over La Esperanza winze, for the purpose of cutting the north lode, we have holed to very ancient workings on that lode, about 4 ft. above their old bottoms. In the clay and attle here accumulated we have met with some pieces of lead pipe, probably used for draining purposes. We have set to hole to the level below for ventilation and proof of the ground, to two men, at 200 reals per vara; the distance probably is about 4 varas. At Field's shaft, the men have sunk in January 3 varas, and have re-taken to sink with six men at 600 reals per vara; the lode contains stones of lead, not to value. At Warne's shaft in the 20, driving west, the men have re-taken to drive at 175 reals per vara; the lode contains stones of ore, not to value. The stopes west of the shaft above the water level are productive, worth from 2 to 3 tons in a fathom. The above bargains are all set, subject to the payment of 1 real per arroba for all the lead saved. The tribute pitches are nearly all set; and these will be particularised as usual by an early post.—I have omitted above to mention the cross-cut driving to cut the north lode in the 45 fm. level, where we have had two men working, who drove in January 1 vara 0 ft. 8 in., which is now re-set by four men at 500 reals per vara.

January 29th, ore weighed in, 52 tons 14 cwts.: total in stock, 191 tons.—Pig-lead smelted, 61 tons, 18 cwts.: total in stock, 505 tons.

ROYAL SANTIAGO MINING ASSOCIATION.—[Received Feb. 5.]

Cobre, Jan. 4.—Capt. Tuckfield reports: I beg to hand you the report for Dec. In the first place, I have to inform you that the work done this month, as well as our raisings, have been limited, owing principally to a want of hands (several Englishmen being sick, and a want of negroes, which, of course, you are aware of—I was in hopes and fully expected them back again before now), our little force has been concentrated on the bunch or shoot of ore east and west of Taylor's shaft, below the 35 fm. level. The stope east of the shaft is looking well, and still improving, yielding 5 tons of ore per fm.; west of shaft we have stoped 4 fms. at 9 fms. from shaft, where the lode is about 2 ft. wide, and will yield 2 tons of good ore per fm. The 35 is driven east of shaft 4½ ft., lode poor at present. As we have a few more negroes come back we have resumed sinking Taylor's shaft, and hope to be able to keep this place full-handed. Thompson's engine-shaft has been sunk 3 ft. 6 in.; we have commenced, and have driven 9 feet north of shaft towards the cross-cut, going south of Taylor's shaft, in order to communicate as quick as possible, which I expect will be done a little before the end of Feb. This is a very important work to be done, as our water is increasing in Taylor's shaft. As soon as the cross-cut is holed we shall do away with all the flat-rods at surface, which is a great impediment to the engine, and put flat-rods in the cross-cut, and bring the water back, and draw it up through Thompson's shaft, which will greatly lessen the load of the engine. The cross-cut south of Taylor's has been driven 2 fms. 4 ft.; the adit end west has been driven 6 ft. 4 in. We have had two Englishmen and two negroes repairing Robertson's shaft, and I am happy to inform you it is completed down to the 110, and have re-commenced driving west in that level, and intend pushing on there with all possible speed. Our raisings for a month has been 50 tons of copper ore only, and precipitate 4 tons.

GOLD IN ENGLAND.—The *Albatross* cutter, which we mentioned was engaged to proceed from Plymouth to Barnstable, to take in a cargo of auriferous gossan from the Poltimore Mine, for transit to Messrs. Rawlings and Watson, of St. Helens, met with a very severe gale, we find, about 12 miles before the Long Ships, Land's End, and was obliged to bear up, and put into Penzance on the 4th inst., in consequence of being light in ballast, to enable her, if practicable, to go over Barnstaple Bar at neap tide. Nevertheless, she reached Appledore on the 6th inst. The captain says, "I arrived off the harbour in the afternoon, but too late to get in. I cannot get a pilot to take the *Albatross* up to Barnstaple; they are all afraid to undertake the job, as the wind is blowing right down the river, and it would strain her to pieces, as the passage is very narrow and the tide runs so strong." These circumstances have consequently occasioned a few days' delay in the shipment of the first golden freight which has been furnished by any English mine; but lighters are now engaged to convey the gossan to the ship, so that in a very few hours, comparatively, it will be in the reduction-works at St. Helens. A small supply of this gossan has likewise been forwarded to Messrs. Betts, the eminent smelters at Birmingham, and another establishment in this town has also requested to have some transmitted to them. Dr. Richardson, of Newcastle, has some in hand for assay, and Mr. Pepper, of the Polytechnic has cursorily tried a portion brought by a friend of his direct from the mine, in which he admits the presence of gold. Indeed, one and all assent to this, and the only question to be determined is, the general yield in a large quantity, and which will now be tried by the reduction of 50 or 100 tons by Messrs. Rawlings. It must be admitted that the Poltimore Company has exerted itself to secure the opinion of competent persons, both far and near; and, whatever may be the final result of this important and interesting question of gold returns in England, the committee of this company has done its best to prevent any misconception in the matter. It will be important to give the different returns of the various assayers and others, and this, probably, we shall be able to furnish in a future article. The yield of gold has so wholly absorbed public attention, that it seems almost forgotten that the Poltimore is a mine of great promise for the production of rich copper, which is a source of profit of no mean consideration at any moment, but more especially now, when the price of this metal has advaned, and indeed is advancing, so rapidly.

WHEAL GOLDEN.—In consequence of the requisition to the purser to call a meeting in London, the committee propose to hold a meeting (in accordance with the rules) at the mine, in the first instance, and to adjourn the said meeting to London, for as early a period as possible in March, to admit of Mr. Thorne, who is the largest shareholder, and now in Switzerland, attending. Mr. Thorne, in a letter to the purser, dated 2d Feb., says—"I think the requisitionists will see the propriety of allowing the meeting to be called when I can be present, which is what I desire."

WEST WHEAL SURPRISE.—We hear the ground west of Wheal Surprise, to adjoin the New East Crowndale Mine, has been taken up, and a company is being formed to set it in full operation, it being the run of the lodes embracing Devon Great Consols, Marquis, or Bedford United, Crowndale, and other lodes—the only piece of ground unexplored from the River Tamar, to join the Devon Burra Burra.

MINERS' MUTUAL IMPROVEMENT SOCIETY.—A meeting was held on the 4th inst., at Perranporth, of the Society for the Improvement of Miners, of which Capt. Pill, jun., is the president, and Capt. Clymo, jun., the secretary. The institution was formed for the purpose of reading, lecturing, and obtaining other means of mutual improvement, in which laudable endeavour the members have been considerably assisted by several mine agents and others. The society is daily increasing, require greater accommodation for their books, and a larger room for their meetings; and with a view of increasing the funds, it is proposed to give lectures on subjects interesting to miners. Otho Cook, Esq., took the chair on this occasion, and gave some excellent hints for the guidance and encouragement of the society. Mr. Tregellas then read a paper on "Mining Technicalities and Local Mannerisms," and continued to amuse his hearers for upwards of two hours: his illustrations concluded with his celebrated story of "The Trial for Kitting," in which he did not fail to show the frequent absurdity of trying provincial cases in a court which, from its ignorance of local terms and technicalities must (as the lecturer expressed it, through the assumed evidence which he introduced) "know nothin' 'bout it, and giss (guess) a verdick." The result of the lecture was a considerable increase of the funds of the society.

Transactions on the Stock Exchange.

Shares.		Paid.	Closing Prices.	Business Done.
100000	Agua Fria	1	⅜ to 1¼ pm.	2
	Anglo-Australian Gold	1	par — 1¼ pm.	1¼
100000	Anglo-Californian	¼	⅛ — ⅜ pm.	1⅜
10000	Australasian	2	1½ — 2½ pm.	
19000	Australian	5	4¾ — 5¼	
60000	Australian Corderilla	1	⅛ dis — ¼ pm.	1⅛
100000	Australian Freehold	1	par — ⅛ pm.	1⅛
50000	Ave Maria	1	⅜ — ⅛ dis.	⅜
72000	Baden, Grand Duchy of	1	par — ⅛ pm.	1 1⅛
100000	British Australian Gold	1	⅜ — ⅜ pm.	1⅜ ⅜
26000	British Iron	13 5	7 — 9	
210000	Carsons Creek	½	par — ⅛ pm.	⅜
100000	Colonial Gold	1	2¾ — 2⅞ pm.	3¾ ⅞ ⅞
350000	Copper Miners of England	Stock		63
70000	English and Australian Copper	5	2¼ — 1¾ dis.	
20000	General	20	14⅝ — 15½	15 ⅝
100000	Great Nugget Vein	2	3¼ — 4⅛ pm.	5¼ ⅝
100000	Lake Bathurst	1	⅜ — ⅛ dis.	⅜
60000	Liberty	1	¼ — ⅛ pm.	1⅛
50000	London and Calif. Gold Quartz	1	⅜ — ⅜ dis.	⅜
100000	Mariquita	1	⅛ dis. — ⅛ pm.	1
20000	Mexican and South American	9	4⅛ — 5	4⅞ x d
200000	New Granada	1	¼ — ½ pm.	1⅜ ¼
200000	Nouveau Monde	1	1 — 1¼ pm.	2⅛
150000	Port Philip	1	1⅜ — 1½ pm.	2⅜ ½
60000	Quartz Rock	1	par — ¼ pm.	1 1⅛
50000	South Australian	1	par — ¼ pm.	1⅛
70000	Waller	1	2¼ — 2¾ pm.	3⅜
100000	West Granada	1	⅜ — ½ pm.	1
100000	West Mariposa	1	⅛ dis. — ⅛ pm.	1 1⅛
100000	Yuba	1	⅜ — ⅝ pm.	1½

DUBLIN, FEB. 11.—Mining Company of Ireland, for account, 13¾ ⅞ ex div.; Royal Hibernian, 1; Wicklow Copper Mine, 47; British Australian Gold, 1½; London and Californian Gold Quartz Crushing Company, ½.

HULL, FEB. 10.—Our correspondents (Messrs. T. W. Flint and Co.) state, that the transactions in mining shares during the past week have been only to a limited extent. There is a better feeling, however, for Tremaynes, and Tavy Consols have been prominently enquired for. Alfreds are steady, but there is no material advance in price. Two or three of the Welsh mines seem to be viewed with more favor.

LEEDS, FEB. 10.—Messrs. Henwood and Molyneux report that there have been extensive transactions in Wheal Prockter at 20s.; Reeth Consols, 18s. to 25s.; and Poltimore, 22s. 6d. Shares have also changed hands in Wheal James at 20s.; Great Wheal Tonkin, 27s. 6d. to 30s.; Wheal Fortune (South Tawton), 2*l.* 10s.; Langford, 32s. 6d., much in request; West Caradon, 300*l.*; and Mary Ann, 30*l.* Dividend mines are enquired for, and gold shares entirely neglected.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, February 11, 1853.

ENGLISH IRON.		per Ton
Bar and bolt *a*	—	£9 15 0
In Wales *a*	8 10 0	— 9 0 0
In Liverpool *a*	—	— 9 5 0
In Staffordshire *a*	—	—10 10 0
*Sheets, single *a*	—	—13 0 0
* „ double *a*	—	14 10 0
*Hoop *a*	—	—12 0 0
*Nail rod, round *a*	—	—11 0 0
„ square *a*	—	—11 0 0
Rails (Wales) *c*	—	— 9 10 0
„ (Staffordshire) *c*	—	—10 0 0
Railway Chairs, Clyde	—	— 5 0 0
Pig, No. 1, Clyde *c*	—	— 2 16 0
3-5ths No. 1 & 2-5ths No. 3	—	— 2 15 0
No. 1, in Wales *b*	—	— 5 0 0
Scotch Pig No. 1 in London	—	— 4 0 0
Cold-blast, No. 1 Foundry	—	— 6 10 0
Charcoal bars	—	—14 10 0
Stirling's Patent Toughened Pigs } Glasg.	—	— 3 12 6
Ditto Wales	4 0 0	— 4 5 0
FOREIGN IRON. *a*		
Swedish	10 15 0	—12 0 0
Russian CCND	—	—17 0 0
Indian Charcoal Pigs in London	—	— 6 0 0
FOREIGN STEEL. *a*		
Swedish keg, nominal	—	—20 0 0
Ditto faggot	—	— —
SPELTER. *c*		
On the spot ... p. ton	—	—21 15 0
To arrive	—	—22 0 0

ZINC.		
In sheets *d*	p. ton	£ 28 0 0
ENGLISH COPPER.		
Tile, 14 to 28 lbs. *a*	p. ton	126 0 0
Tough cake *a*	„	126 0 0
Sheathing and bolts *a*	p. lb.	0 1 2
Sheet *a*	„	0 1 2
Bottoms *a*	„	0 1 3
Old *a*	„	0 1 1
Yellow Metal *a*	„	0 1 0¼
Wetterstedt's Pat. Met.†	cwt.	1 16 — 1 18
ENGLISH LEAD. *a*		
Pig	p. ton	— 25 0 0
Sheet	„	— 26 0 0
FOREIGN LEAD. *a*		
Spanish, in bond	p. ton	—
ENGLISH TIN. *e*		
Block	p. cwt.	5 7 0
Bar	„	5 8 0
Refined	„	5 10 0
Grain	„	5 14 0
Fine grain	„	6 5 0
Ditto bars	„	6 7 0
Ditto granulated	„	6 9 0
FOREIGN TIN. *e*		
Banca	p. cwt.	5 5 0
Straits (uncertified)	„	5 8 0
TIN-PLATES. *b*		
IC Charcoal	p. box	— — 1 15 0
IX Ditto	„	— — 2 1 0
IC Coke	„	— — 1 7 6
IX Ditto	„	— — 1 13 6
Canada plates *a*	. ton	— — —
QUICKSILVER *f*	p. lb.	— — 0 2 4

Terms.—*a*, 2½ per cent. dis.; *b*, 3 ditto; *c*, nett; *d*, 1½ per cent. dis.; *e*, 2 ditto.; *f*, 1½ ditto; deliv. in Liverpool 10s. per ton less.—† Discount 5 per cent.
* Cold blast, f.o.b. in Wales.

The market for all descriptions of manufactured iron has been without alteration since last week, and prices have not changed.

SCOTCH PIG-IRON has been further reduced in price this week, and sales are reported to have been made for cash under 55s. per ton. There are symptoms of improvement in the market to-day, with ready buyers at 54s., and no sellers under 55s., free on board in Glasgow.

SPELTER has been very lively, and sales have been made at 21*l.* 15s. to arrive, and 21*l.* 12s. 6d. on the spot: holders are now firm at 21*l.* 15s. and 22*l.*

COPPER is in large request, at the advanced rates.

LEAD continues in active enquiry, with an upward tendency.

TIN very firm, in expectation of an advance. East India in fair request, with advancing prices.

TIN-PLATES are rather firmer this week, and in good demand.

[FROM OUR CORRESPONDENT AT BIRMINGHAM.]

FEB. 10.—The trade report of this week amounts to little more than a repetition of that of last, and may be given in a few words,—continued scarcity of raw material, high prices, abundant orders for manufactured goods, and consequent embarrassment of the manufacturers, arising from their inability to execute them. There has not been any further advance in the price of copper declared since my last letter, but the smelters will not accept orders at the last quotations. The metal dealers have empty warehouses, and are obliged to dole out the smallest possible quantities to their customers; many extensive manufacturers are said to be on the eve of closing their works, with an unprecedented number of good orders on their books; and the trade is altogether in an anomalous position. The oldest metal dealer in Birmingham does not remember such a state of things, which is certainly in no small degree attributable to the extraordinary demand for manufactured goods, during the last few months, for home and foreign consumption, and the scarcity of ore. The continual scarcity of ore may, I believe, be fairly assigned as the principal cause of the present extraordinary high prices; and this will be found in the decrease of supply from the Cornish mines, the total abandonment of the Australian works by the miners for the gold diggings, and the withholding of a large quantity which usually found its way from Peru into this market. The inconvenience arising from the state of the tin market is still more general, and likely to be more injurious than that experienced from the copper market; and suspicions are not unreasonably entertained, that the deficiency of this article in Birmingham is not the result of a general scarcity of tin. The metal dealers have not, comparatively, one pound of tin in stock to supply the thousands of hands depending for employment upon this article; although it is pretty well known that there are large stocks in London, held back for the express purpose of forcing ruinous prices. In this state of things, orders are being declined, and the workmen will ere long be brought to idleness, until another twist of the Bank screw, or some continental shock, shall compel the speculators to loose their hold upon what is to so many persons in this town and district a real essential of life. The iron trade still rules firm, no alteration of prices has taken place, and the report of the Bilston Bank, issued on Tuesday last, affords ample proof of the general sound healthy state of that portion of the mining district by which it is surrounded. W. H. Sparrow, Esq., presided at the 16th annual meeting of the board, when it appeared from the report, that the nett profit amounted to 2828*l.* 16s. 8d., and the usual dividend of 4 per cent. for the half-year ending the 31st December was recommended, and the balance to be placed to the guarantee fund. In many of the large works great activity prevails in making for the forthcoming exhibition in Dublin. The glass is being rapidly prepared at the works of Messrs. Chance, Brothers, and Co.; and Fox, Henderson, and Co., are likewise actively engaged preparing for the opening.

MINES.—At the commencement of the week, the market opened rather dull, though enquiries were made for a few large shares—such as United, Basset, Devon Consols, and South Tolgus. Towards the latter part, however, the business became brisker; and East Darren advanced from 95*l.* to 105*l.*; Wheal Buller, 1250*l.*; Mary Ann, 36*l.* to 37*l.*; Gonamena, 10½*l.* to 11*l.*; Spearne, 10½; Crebor, 15*l.*; Hingston, 5*l.*; South Tamar, 6¾*l.* to 7*l.*; North Towy, 1*l.*; Clive, 5¾*l.* to 6*l.*; Uny, 14*l.* to 15*l.*; Merllyn, 4½*l.*, 4¾*l.*, to 5*l.*; Robins, 3¾*l.* to 4*l.*: Devon Great Consols, 430*l.*; Basset, 590*l.*; South Tolgus, 220*l.*, 225*l.*, to 230*l.* West Caradon having advanced to 310*l.*, brought a few sellers in the market, and shares slightly receded. South Caradon advanced to 200*l.*; Caradon Consols, 15*l.*; Black Craig, 4½*l.*; United Mines, 370*l.*; West Providence, 54*l.* to 55*l.*; Herodsfoot, 11*l.*; North Trelawny, 5½*l.*; West Ding Dong, 13*l.*, with a market for metals still rising. Good dividend mines are in great favour; but some of the new concerns, which have been forced to high premiums, are not so saleable as they were. In Pen-y-Geili, a large amount of business has been done at 27½*l.*, 28*l.*, and 30*l.* per share.

In the Metal Market,—Copper, Tin, and Lead, notwithstanding the advance, are in such extensive demand that a further rise in all is expected.—Banca Tin is in the same condition, and Tin-Plates realise full prices.—Spelter has been extremely active, and holders now ask 22*l.* per ton.—The Iron Market is without alteration, and a very extensive business doing; Scotch Pig is 55s. cash, and the same price, free on board, at Glasgow.

In the Bullion Market,—Mexican and South American dollars, 4s. 11½d per oz. Bar silver, without gold, 5s. 1½d. per oz. standard. Bar gold, 77s. 9d. per oz. standard.

The sale of copper ore at Thursday's Ticketing was 3945 tons, amounting to 27,205*l.* 12s., the average produce and standard being 5½, 157*l.* 17s. The corresponding sale last month was 3262 tons, producing 24,575*l.* 6s., the average produce and standard being 6¾, 152*l.* 5s.

The Laxey, Lydford Consols, East Logylas, Frongoch, Maesyrerwddu, Coetia Llys, Deep Level, Merllyn, Talacre, Holywell Level, Dylife, Rhoswydol, Bryn Eedwen, Shallee, East Shallee, Cairnsmore, Creetown, Bryncisteddfod, and Dylift mines, have sold lead ores during the week.

Wheal Robins, Porkellis United, and West Towan, have sold black tin.

At Grambler and St. Aubyn meeting, on Tuesday, the accounts for four months ending Dec. showed—Balance from last account, 603*l.* 4s. 1d.; mine costs and merchants' bills, 735*l.* 16s. 2d.=1339*l.* 0s. 3d.—Ores sold (less dues), 103*l.* 14s. 5d.; call in Oct., 729*l.*: leaving balance against the adventurers, 506*l.* 5s. 10d. A call of 3*l.* per share was made.

At the North Wheal Trelawny (Liskeard) meeting, on Tuesday, the accounts showed—Labour cost, carriage, agency, and stores for five months to end of Dec., 319*l.* 18s. 4d.—By call, 106*l.* 4s.; lead ores sold, 109*l.* 5s. 10d.: leaving balance against mine, 104*l.* 8s. 6d.; to which add that from the previous account, 1*l.* 4s. 8d.: leaves 105*l.* 13s. 2d. to debit of next account. A call of 5s. per share was made. The agent's salary was advanced to three guineas per month.

At the West Wheal Seton meeting, on Tuesday, the accounts showed—Call, 400*l.*; ores sold, 889*l.* 11s. 7d.=1289*l.* 11s. 7d.—By labour cost, November, 341*l.* 1s. 4d.; ditto Dec., 243*l.* 1s. 3d.; merchants' bills, 356*l.* 10s. 5d.; on account of new erections, 326*l.* 6s. 6d.: leaving balance, 22*l.* 12s. 1d., which deducted from balance last account, 376*l.* 0s. 5d., leaves against adventurers, 353*l.* 8s. 4d. Capt. T. Bray reported that the shaft on the south lode was holed to the 90 fathom level. The 90 west is producing 7 tons of ore per fathom; ditto west of cross-course, 4 tons per fm.; ditto east, 2 tons of ore per fm.

At the Exmouth and Adams United Mines quarterly meeting, on the 1st inst. (W. Porter, Esq., in the chair), the accounts showed—To cash in hand at last meeting, 1070*l.*; to ore sold, 1364*l.* 5s.=2434*l.* 5s.—By cost-sheet, half month, to Nov. 13th, 254*l.* 12s. 10d.; ditto to Dec. 11th, 600*l.* 6s. 3d.; coal and iron, 158*l.* 13s. 6d.; rent and damage of land, paid Lord Exmouth, 55*l.* 18s. 11d.; deposit on 47 yards ditto, 35*l.* 5s.; dues (1-13th on 1364*l.* 5s.), 104*l.* 18s. 10d.: leaving balance in favour of adventurers, 1224*l.* 14s. 8d. Captain Martyn's report having been read, it was resolved that a special general meeting be convened for Feb. 22, at 12 o'clock, to determine on the propriety of at once sinking a shaft and erecting an engine in the spot of ground proposed to be granted by Lord Exmouth, and also for the purpose of deciding on the propriety of issuing new shares, or of making a call, to defray the expenses of such works, and for the general business of the mines. Messrs. Porter, Woodman, Hartnell, Ware, Glover, Pearse, and Head were appointed the committee of management for the next two months. The report of Capt. Martyn will be found in another portion of our columns. A great many shares in this adventure have lately changed hands at 7¼ and 7½. There are now 50 tons of ore dressed towards next sampling, and the mine is altogether presenting an improved appearance.

At Chyprase Consols Mine special meeting, held at the Stork Hotel, Birmingham, on the 4th instant (Mr. C. Hinks in the chair), the reports of Captains C. Thomas, of Dolcoath, and John Webb, of St. Austell; Mr. W. C. Morgan, and Mr. C. Hinks, on the state of the mine and its prospects; and those of Capts. Gripe and Webb, on West Crinnis Copper Mine, having been considered, it was unanimously resolved—"That the machinery be removed from its present position to the West Crinnis Copper Mine, near St. Austell; that 1280 additional shares be issued at 2*l*. each, payable by a deposit of 10*s*., on application, and three equal quarterly instalments; that the title of the company be in future the 'West Crinnis Copper Mining Company;' that in case any additional capital be required then, that the same shall be made by a call upon the whole of the shares, of which, at least one month's notice shall be given to each shareholder; and that any shareholder choosing to withdraw from the company be allowed to do so, with his share of the machinery, in case he intimates to the purser his intention of doing so within 21 days from the date of this meeting, but not otherwise." A vote of thanks and confidence was also passed to the committee and officers of the company. We understand that upwards of 300 of the additional shares issued for working West Crinnis Copper Mine, which is situated in one of the best mineral districts in Cornwall, were taken up at the meeting. In case the whole of them are not taken up by the present shareholders, the remainder will be offered to the public.

At the Yeoland Consols quarterly meeting, on Wednesday (Edward S. Codd, Esq., in the chair), the accounts showed—Call of 1*l*., made in Nov. (less discount), 1897*l*. 12*s*.; sale of spare materials, 20*l*.; tin sold, 1154*l*. 14*s*. 4*d*.—3072*l*. 6*s*. 4*d*. —By balance at last meeting, 298*l*. 5*s*. 3*d*.; costs for Oct., Nov., and Dec., 976*l*. 11*s*. 8*d*.; bills paid (principally old liabilities), 1051*l*. 0*s*. 6*d*.: leaving balance in favour of adventurers, 772*l*. 8*s*. 11*d*. It was considered that the sale of 91 shares, now in the hands of the company, and a parcel of very rich copper ore, would go far to liquidate the remaining liabilities. The outlay during these three months has included about 350*l*. for floors, new lift, stamps, &c., but taking the average working costs as against the produce, the profit during that time has averaged 100*l*. per month.

At Tavy Consols bi-monthly meeting, on Tuesday (W. Radmore, Esq., in the chair), the accounts showed—Balance last account, 462*l*. 12*s*. 7*d*.; labour cost, November, 283*l*. 4*s*. 11*d*.; December, 252*l*. 13*s*. 3*d*.; merchant's bills, 90*l*. 18*s*. 8*d*.; lord's dues, 26*l*. 3*s*. 6*d*.=1115*l*. 12*s*. 11*d*.—By call, 709*l*. 4*s*.; ores sold, 367*l*. 13*s*. 5*d*.; carriage, 30*l*. 13*s*. 10*d*.: leaving balance against mine, 8*l*. 1*s*. 8*d*. It was resolved that the captain and committee should be requested to report at next meeting on the best plan for working the Little Duke Mine, and to take the opinion of any practical mine agent on the subject. Capt. W. Goss reported that the engine-shaft was down to the 68 fm. level. In the 58 the lode is from 5 to 6 ft. wide, good tribute ground. In the 46 the lode is 6 ft. wide, opening good tribute ground, end worth 2 to 3 tons per fathom; in the rise in the back of ditto the lode is 8 ft. wide. In carrying this rise more south there is a beautiful course of ore, worth 8 or 10 tons per fathom, good quality, worth 10*l*. per ton. There are 18 men and boys in the tribute department, all getting wages. There were sampled on Jan. 28, 76 tons copper; it was expected to have been 100 tons, but the falling off is attributable to increase of water. The deficiency will come into the next sampling.

At New East Crowndale meeting, the accounts showed—Balance in favour of mine, on 12th Nov., 2*l*, 1*s*. 1*d*.; calls paid, 396*l*. 12*s*.; valuation of materials, 1800*l*. = 2198*l*. 13*s*. 1*d*.—By mine cost, Oct., Nov., and Dec., merchants' accounts included, 3777*l*. 2*s*.: leaves balance in favour of mine, stock included (1800*l*.) 1834*l*. 5*s*. 11*d*.

At East Seton and Wheal Maude Consols meeting, on the 2d inst., the accounts showed—Balance from last account, 700*l*. 10*s*. 1*d*.; labour cost, September, 173*l*. 6*s*. 9*d*.; Oct., 154*l*. 1*s*. 3*d*.; Nov., 167*l*. 16*s*. 7*d*.; Dec., 164*l*. 7*s*. 2*d*.; merchants bills, 194*l*. 7*s*.=1554*l*. 8*s*. 10*d*.—By copper ore sold (less dues), 360*l*. 17*s*.; call made Oct. 6th, 640*l*.: leaving balance against the adventurers, 553*l*. 11*s*. 10*d*. A call of 1*l*. per share was made. The 45 fm. level is extended 10 fms. east and west of engine-shaft, the lode averaging 18 inches wide; in the same level east the lode is 2½ ft. wide, with good stones of ore; west, the lode is 1 ft. wide—unproductive. The 32 is extended 40 fathoms east, lode about 2 ft. wide. The lode in the 10 fm. level has contained ore, but is now unproductive; in about 10 fms. more they expect to come under better ground. The 20 fm. level is extended 105 fms. east, half the ground productive of ore—working on tribute; the lode in the end is 15 in. wide—unproductive; they are now rising to the 10 fathom level, through tribute ground, for ventilation. The 10 fm. level is extended 80 fathoms east, through tribute ground, but is suspended, the lode being small and unproductive. The 32 cross-cut is driven 27 fathoms, the lode not yet cut; the cross-cut is continued, as there are other lodes before them. They have six pitches working on an average tribute of 11*s*. in 1*l*. About 40 tons of ore are expected to be sampled in a fortnight.

At Kilbricken general meeting, on the 25th Jan. (E. J. Hensley, Esq., M.D., in the chair), in consequence of the illness of the secretary (Mr. J. H. Smith), and the incomplete state of the accounts, an estimate only of the company's position was presented. From this it appeared that a balance existed against the adventurers of 236*l*. 3*s*. 2*s*.; while a sum of 784*l*., credited in the accounts for ores sold, was not yet realised. A call of 10*s*. per share was made. In consequence of the illness of the secretary, and his too great occupation in other matters, Mr. Cornelius Leary was appointed to succeed him *pro tem*. It was suggested, that when the books are prepared, another meeting should be called, for the purpose of placing the London management in the office of Mr. Peter Stainsby. A special general meeting is to be convened for Tuesday next, for the purpose of forfeiting all calls in arrear. From Capt. Richards's report, it appeared that many good discoveries had been made, and particularly a fine branch of silver-lead ore, 4½ ft. wide, in the 22 fm. level, valued at 120*l*. per fathom. The mine altogether was looking very satisfactory. There being a want of a proper supply of coals, it was recommended that the engine should remain idle until coals could be obtained on better terms.

At the Gawton United Copper Mine meeting, on the 1st. inst., the accounts showed—Calls, 715*l*.—By balance from the last account, 208*l*. 4*s*. 4*d*.; labour cost for October, 125*l*. 15*s*. 6*d*.; November ditto, 114*l*. 10*s*. 2*d*.; December ditto, 66*l*. 8*s*. 9*d*.: leaving balance in favour of the company of 199*l*. 1*s*. 3*d*. The amount of assets in favour of adventurers was 234*l*. 1*s*. 3*d*., against which has to be set off January cost. A call of 5*s*. per share was made. The erection of a water-wheel having been tendered for by several founders, the decision was left to the committee of management. The salaries of the several officers were increased as follows:—Capt. J. Bray, to three guineas; Capt. H. Horswill, to six guineas; Thomas Fuller, five guineas; and N. Sims, four guineas per month. Capts. Bray and Horswill reported that the lode in the adit was worth 20*l*. per fm.—that the lode discovered in Bayly's shaft was thought to be the great copper lode at Gawton Quay. Much difficulty had been experienced from insufficient ventilation, and a new shaft had been commenced. The necessary surface buildings were being proceeded with, and they believed everything was in a prosperous way to lay open a profitable mine.

At East Wheal Margaret meeting, on the 17th January, the accounts showed—Balance last account, 655*l*. 5*s*. 6*d*.; five months' labour cost, ending Nov. 813*l*. 0*s*. 2*d*.; six months' merchants' bills, ending Dec., 352*l*. 11*s*. 9*d*.=1850*l*. 17*s*. 5*d*. —By call made 31st Aug., 768*l*.; tin sold, 657*l*.: leaving balance against adventurers, 425*l*. 17*s*. 5*d*. Captain Treweek having reported that he had contracted with Messrs. Sandys, Vivian, and Co. for the delivery of a 30-inch cylinder steam-stamps, at the price of 1067*l*., the contract was confirmed, and a call of 1*l*. per share made. The engine-shaft at Cargenvin's lode was sunk about 4 fms. below the 38, which level was driven about 20 fms. east and west, mostly through good lodes. The 28 west was extended 43 fms., previous to the end of which the lode divided, the level keeping along the south part; the ground being hard, and the lode spanning the whole width of gunnis, they have cut north to where the lodes re-unite, from which place there is a run of tin for 40 fms. At caunter lode, the engine-shaft was being sunk below the 37; there were 3 fms. completed, and 3 or 4 fms. more to sink to where the caunter lode meets Tregoning's, and from these having been very rich in the 37 west great returns were here expected. The 37 was driven west to the junction previously referred to 12 fms., through a good lode; but, in consequence of ventilation being much required, it was suspended, and communications were being made with the upper lode. The 37, at Tregoning's, was driven about 4 fathoms east, the present end being 1 ft. wide, and very rich; west it had been driven 17 fms., where the lode was small, but in places yielding good saving work. The 27 was driven 30 fms. east, with a lode of average quality; it had been driven 40 fms. west, displaying a lode of gradual increase in size and value. At Wheal Mirth, the 23 was progressing, but nothing valuable found, though within 5 or 6 fms. of a reputed run of tin ground. There were 8000*l*. or 1000*l*. worth of reserves awaiting the operations of the steam-stamps. The salary of Mr. T. Treweeke, jun., the purser, was increased to 6*l*. 6*s*. per month; that of Capt. B. Michell, the resident agent, to 8*l*. 8*s*. per month; and that of Mr. G. Eustice, the engineer, fixed at 1*l*. 1*s*. per month.

At the Devon Great Consols, in the 110 cross-cut north, the main part of the lode has been cut through, and proves to be 24 ft. wide, a most magnificent course of ore, worth 30 tons, or 210*l*. per fm.

At Lydford Consols, 16 tons lead ore have been sold at 19*l*. 8*s*. 6*d*. per ton.

West Ding Dong Mine has sold 4 tons 6 cwts. of tin, at 68*l*. 10*s*. per ton.

At Garreg Mine, the breakage in the 20 fm. level north is cleared, and driving has been resumed; the lode is about 3 ft. wide, producing lead, and opening tribute ground; the tributers working in the back of this level are getting good lead.

At the Mostyn Mine, in clearing some part of the old mine the workings on the south lode have been laid open; the lode is from 2 to 3 feet wide, with a good branch of lead; this lode will be shortly set on tribute.

At Wheal Sidney, a great improvement has taken place, extending from the 23 fm. level to the surface.

At East Margaret, the lode in the 38, west of Cargenvin's lode, is said to be worth from 30*l*. to 40*l*. per fathom.

At Boringdon Consols, the adit level east has improved; the ground being laid open will let at a moderate tribute. The men are put to cross-cut the north part of the lode (which has not been seen for a good many fms. driving), to ascertain whether it is as productive as the part now being driven on. In the 12 fathom level under adit the lode is about 2 ft. wide, saving work; this end is expected to be shortly into the rich course of ore ground gone through in the adit. The 12 fm. level west is laying open tribute ground. On the 4th inst., 33 tons of lead ore were sampled.

A valuable copper lode has been discovered at Sidney Godolphin Mine, known by the name of Orchard lode.

At South Tolgus, the lode in the 54 fm. level west is 20 in. wide, and is now worth 4 tons, or 80*l*. per fm.

At the Devon Consols North, the engine-shaft is down 23 fms.; it is greatly improved, now sinking in a clean channel of mineralised killas.

From Wheal Uny, the advices are very flattering: the men have nearly cleared up the large cavern that was discovered in the lode, and will now commence breaking ore ground. The tribute pitches are looking well.

The Kenmare Mines have been recently inspected by Capt. H. Vivian, who reports highly favourable as to their prospects; and a communication subsequently received from Capt. W. Thomas represents the appearance of the lode in the 46 fathom level west to be so far improved as to add a considerable per centage to the produce. Specimens have lately been sent here, which hold out great promise. The meeting of yesterday has been adjourned until Friday next.

The agent at North Wheal Robert estimates the value of the ore discovered at about 5000*l*. There are 40 tons of rich copper ore which will be sampled this month, and an equal quantity every two months, which, we understand, will give a good profit. The 30 end west is worth full 1 ton of good ore per fm., and the rise in the back of the same level 2 tons per fm. The 42 end is 2 ft. wide, saving work, and will soon be in the ore ground found above.

Garallan Mine, in the neighbourhood of Marazion, has become the scene of fresh operations. A company is also being formed by John Peter, Esq., of Callington, for working the well-known Marazion Mines, and high results are looked for in the neighbourhood.

The account-books of the Clive Mine are now at the office of Mr. P. Stainsby, Salvador House, Bishopsgate-street.

The Knockastrellane Copper Mining Company intend to allot their shares in the course of the ensuing week. In addition to the number applied for in England, a large demand has been made for them in Ireland.

Balnoon Consols look remarkably well; they have now 16 men at work on the tin, which continues as rich as ever. They sold for last month 321*l*. worth, which was stamped in one month by nine heads—one-half of this being profit. They are trying to take another stamps, which will considerably increase the returns. At present they cannot stamp the stuff as fast as it can be broken.

Reeth Consols continue to look very well.

During the week, shares have changed hands in Alfred Consols, Black Craig, Botallack, Carn Brea, Comford, Condurrow, Devon Great Consols, Dolcoath, East Pool, East Wheal Rose, Gonamena, Great Polgooth, Herodsfoot, Levant, North Pool, Merllyn, North Wheal Basset, Par Consols, Rix Hill, South Caradon, South Tolgus, South Wheal Frances, Spearne Consols, Tamar Consols, United Mines, West Caradon, Treviskey and Barrier, West Providence, Wheal Basset, Wheal Buller, Wheal Exmouth and Adams, Wheal Golden, Wheal Lovel, Wheal Mary Ann, Wheal Trelawny, Wheal Tremayne, Balnoon, Bishopstone, Boringdon Consols, Cubert, Calstock Consols, East Balleswidden, East Wheal Margaret, Kenmare, North Damsel, Leeds Town, North Wheal Robert, Pembroke and East Crinnis, Sithney Wheal Buller, Prideaux Wood, Reeth Consolidated, South Carn Brea, South Crenver, West Basset, St. Day United, Tavy Consols, Tyn-y-Worgiod, West Ding Dong, Wheal Langford, West Fowey Consols, West Wheal Treasury, Wheal Crebor, Wheal Uny, Wheal Zion, Blaen Caylen, Carberry West, Crow Hill, East Wheal Russell, Hill Bridge Consols, New East Crowndale, Pen-y-Gelli, Treburget, Surprise, Tees Side, Royal Hibernian, Mizen Head, Wicklow, Connemara, and Mining Company of Ireland.

In Foreign Mines, transactions have taken place in Cobre, Grand Duchy of Baden, Linares, Mariquita and New Granada, Santiago, United Mexican, Jamaica, L'Aigle d'Or, Monarch, Worthing, Port Philip and St. Andrews, &c.

The Linares Mining Company have advices to the 29th of Jan. The ore weighed in, 52 tons 14 cwts.: in stock, 191 tons. Pig-lead smelted, 61 tons 18 cwts.: in stock, 505 tons. The engine-shaft is down 3 fms. below the 65. The winze sinking below the 55 is worth 2½ tons of lead ore per fm.; the 55, west of La Casualidad, 1½ ton of ore per fm.; the stopes in the 55 are respectively worth 2½ tons and 3½ tons per fm. The 45 west, ¾ of a ton; the 45, east of Esperanza, 1½ ton; La Suerte winze, sinking under the 31, is worth 1 ton. West of San Juan, in the 31 fm. level, two-thirds of a ton. The 31, east of Thorne's, on the south lode, 1½ tons; Thorne's shaft sinking below, 3 tons; on the north lode, west of La Esperanza cross-cut, the lode is worth 3 tons in a fm.; on the north lode, east of Esperanza, it is large, and worth 5 tons; west, ½ a ton; the stopes west of Warne's shaft are worth 2 to 3 tons of ore per fm. The tribute pitches are nearly all set.

The Royal Santiago Mining Association have received advices to the 4th Jan. The work for the last month, as well as the raisings, have been somewhat limited—the latter to the extent only of 50 tons of copper and 4 tons of precipitate; this has been caused by a want of hands. The stope east of Taylor's shaft is looking well, presenting an improving appearance, and yielding about 5 tons of ore per fm.; they have stoped west of the shaft 4 fms. at 9 fms. from shaft, where the lode is about 2 ft. wide, yielding 2 tons of good ore per fm. They have driven 4½ ft. in the 35 east of shaft, but met with a poor lode. They have re-commenced sinking Taylor's shaft, and, having a few negroes returned, hope to keep this place full handed. Thompson's engine-shaft has been sunk 3 ft. 6 in., and they have driven 9 ft. north of shaft towards the cross-cut going out from Taylor's shaft, in order to form a communication, which was expected to take place before the end of the present month. This step appeared highly desirable, on account of the great increase of water in Taylor's shaft. In the cross-cut south of Taylor's they have driven 2 fms. 4 ft., and the adit end west 6 ft. 4 in. Robertson's shaft is repaired to the 110, where they have re-commenced driving west, and intend to continue with all possible speed.

At the New Granada Company's meeting, on Tuesday, a resolution was unanimously carried, approving the course pursued at the previous meeting, at which the directors had confirmed the purchase of the Frontino, Juan Criollo, and Bolivia Mines, in the province of Medellin. The meeting likewise sanctioned the power then given to the directors of taking such steps as might seem advisable, and tending to the interest of the proprietors in general.

At the Australian Agricultural Company's special general meeting, held yesterday (W. S. Brownrigg, Esq., in the chair), resolutions were carried unanimously, confirming the agreement made on the 4th inst. with the Peel River and Mineral Company for the sale of a portion of their property for 500,000*l*., and also for introducing a Bill to Parliament to amend the company's Act, 5th George IV., to enable them to increase the shares from 10,000 at 10*l*. each, to 40,000, at 25*l*. each, and introducing a clause enabling the shareholders to vote by proxy. The solicitor said the confirmation of the agreement with the Peel River Company was conditional with the complete registration of their shares, but in effect that was arranged. In answer to questions by shareholders, the chairman said that the Australian Agricultural Company was carried on under their own Act of Parliament, passed long before the Act regulating Joint Stock Companies, but the Peel River Company must be guided by the latter Act of Parliament. Eight of the directors of the Australian Agricultural Company had taken upon themselves the formation of the Peel River Company, and in a short time it would be in the power of the shareholders to increase that number. A shareholder wished to know the plan of the directors with regard to the agricultural portion of their estate; he highly approved of the Peel River scheme, but they possessed millions of acres of the most prolific land in the world; the tide of immigration had set in, and they ought to find food for that population; at the present time they only possessed 100,000 sheep and 10,000 head of horn cattle; he considered they ought to have ten times that number. Let them develope the resources of the large estate they possessed; if they allowed it to remain idle, it would be perfectly suicidal. If they expected a good return they must advance their money with spirit. He did not wish to encroach upon the prerogative of the directors, but the question was, whether a call ought not to be made to increase the agricultural business of the company. The chairman said he was always happy to hear the suggestions of proprietors, but he must remind the meeting that the state of affairs alluded to were of very recent origin, and for some years they were obliged to boil down their sheep for fat, to make any return; he could assure the meeting the most anxious attention would be given by the directors to the interests of the company. The meeting terminated with a vote of thanks to the chairman.

We understand that the London directors of the Worthing Mining Company are taking steps to carry out the resolutions of the late special general meeting. Steam stamps (for crushing gold quartz) are ordered for immediate shipment, and it is intended to remit specie by the next steamer to the colony, to be made use of in the extended operations of the undertaking as a gold company. The new certificates are now issued, representing the capital at 100,000*l*., in shares of 1*l*. each, 10*s*. per share; only 2*s*. per share can be called at one time, at intervals of at least three months.

The British and Colonial Smelting and Reduction Company is progressing most satisfactorily. The works in Devon are already in successful operation, and the business will shortly be commenced at Blackwall. The entire of the shares have been paid upon, and the directors have given notice of application for a charter of incorporation.

The Quartz Rock Gold Company have received intelligence of the arrival of the *Orkney Lass* at Callao on the 13th, and of her departure for San Francisco on the 15th December last. The vessel has on board the third shipment of the company's machinery, in the care of two working engineers, and may be expected to arrive at San Francisco by the end of December.

Wednesday next has been appointed settling-day for the shares in the Lewis Hill Range (Australia) Gold and Copper Mining Company, but they are not to be marked in the Official List.

Captain H. B. Stoney, of the 99th Regiment, who has sailed in the ship *Senator*, has received the appointment of superintendent of agents in Australia for the Port of Southampton Emigration Company. The shares in this company, for which the applications have been numerous and respectable, will be allotted on Monday next.

The directors of the Gladbach Zinc Company have just issued a second statement to the proprietors. The assets of the company on Jan. 1st last, were a cash balance in hand, 37,925*l*., and 4000 tons of pure calamine ore on surface, on which, when manufactured, there will be a profit of 14,000*l*.: total, 51,925*l*. The report states that the 1*l*. shares are in course of preparation, and will be exchanged (as soon as the final instalment, due on the 2d of April next, shall be paid) for the present certificates of 40*l*. each. The four months that had elapsed since the company entered into possession of their mineral property, have more than corroborated the reports and statements circulated in October and November, 1852. 1st, by the abundance of ore extracted from the particular spots known to the late vendors; and, 2ndly, by the continuous discoveries of new and rich beds of calamine. In this early stage the workings can only be considered as preparatory; nevertheless, 30 workmen have extracted and placed on the surface, at a cost of 500*l*., about 4000 tons of calamine ore, capable of realising, by estimation, 14,000*l*. profit, and opened out resources which will yield from 200 to 250 tons per week. With regard to the amount of mineral produced by this small number of labourers, and to the prospects presented by the continuous discoveries referred to, the directors have no doubt that, with their concessions, extending over an area of nine square miles, and with enlarged explorations and employment of labour, an amount of mineral may be easily produced, by the time the 56 furnaces are ready, to ensure a minimum produce of 6000 tons of metallic or rough zinc per annum.

The Pittsburgh Copper Company (Cliff Mines) has just declared a dividend of $15 per share for the present year, payable in February and August, and has earned, it is stated, at least $20.

The recent fluctuations and depressions in the iron market may be regarded as the natural reaction after a period of excitement, during which the article had not merely been driven upwards by the legitimate circumstances of an increasing demand and an evidently deficient supply, but had been sustained at a very considerable advance by the speculative principle which was so prevalent up to the moment of the interference of the Bank of England in successively raising the rate of discount to 3 per cent., at which rate it appears at present to be stationary. In the case of such deterioration, as the value of this important article of home production has suffered of late, other circumstances than those chiefly conducive to the decline in question necessarily accompany the movement of the market price, which, while the advance was continuing or maintained, might not be expected to occur. Where there has been extensive speculation, as there undoubtedly has been in the iron trade, a reduction in price, or even an interval of fluctuation in the market, cannot fail to be attended by counter excitement and alarm in the quarter where the article affected excites the most interest; and accordingly, in Glasgow, it has been reported that sales have been effected at lower figures than are to be found in the general quotations, and also that even apprehension has existed as to the eventual stability of certain parties involved in large transactions, and compromised, it was assumed, by the late alterations in the price of Scotch pig-iron. It appeared that such rumours or apprehensions were more gratuitous that warrantable, and that among the extravagancies, both of the sanguine and the timid, at the present critical time, may be included that of attributing such danger to the enterprising operations of the trade employed in regulating the supply and meeting the demand in connection with this great article of home and foreign consumption. Speculation has been rife; but the increase of the demand is enormous; and with the continued prospect of a reduction of the duty on the importation of British iron into France and America, there would seem to be every likelihood that in the recovery from the recent temporary pause, which is already discernible, the article of iron will inevitably participate. With respect to the modifications of duty above alluded to, it may be reasonably anticipated that the alteration in France will be extensive, and accomplished within no distant period. During the week business transacted in the iron companies has been limited to the Portland and Blaenavon, a few shares in the latter having been done at 15*l*., and sales have been effected in the Portland at ¼ to ¾ premium, being a fall of ¼ on last week.

Advices from New York describe the price of metals as very firm, and having an upward tendency. Lead particularly was much in demand. From Hamburg we hear of extensive transactions in spelter, at high rates—sellers at 21*l*. 15*s*.

Twelve shares in the Blaenavon Iron and Coal Company were sold by auction, at 15*l*. each, by Mr. John Williams, at the Westgate Hotel, Newport, last week. In consequence of the shares not realising the price expected, no further lots of the property were put up.

Although business in the gold mining shares has been somewhat more active than of late, yet no sympton has shown itself as tending towards the buoyancy observable a few weeks since. Owing, however, to an increased demand within the last few days, prices have been generally firmer for the more esteemed descriptions, including Great Nugget Vein, Port Philip, Colonial Gold, Nouveau Monde, Agua Fria, New Granada, and Yuba River. Favourable advices, both from California and Australia, are shortly and anxiously looked forward to; in the meantime, holders show an indisposition to sell. Enquiries have been made for British Australian shares, on account of the company having completed an arrangement for the working of a valuable auriferous estate in Australia without purchase, giving the owners 15 per cent. royalty on the gold found. The shares of the Union Gold Mining Company were allotted on Tuesday last, but have hitherto attracted little attention. Liberty shares have been flatter, and the North American gold mining companies do not appear to be regarded so favourably as they were a few weeks since. The shipments of gold from Sydney to the 8th September last were 185,498 ozs.; since that date ships have sailed from that port, but not arrived, carrying in the aggregate 342,792 ozs. of gold. This, in addition to the *Bloomer*, lately arrived with 10,700 ozs., and the previous shipments to the 30th of June, 1852, will make a total of 1,026,985 ozs, of gold, which, at the value of 4*l*. per oz., would give 4,107,940*l*. sterling. The transactions on the Stock Exchange will be found in the usual place. The non-official quotations are—Monarch, par to ¼ prem.; L'Aigle d'Or, par to ¼ prem.; Garnett and Moseley, ⅛ dis. to ⅛ prem.; Australian Mutual, ¼ to ¾ prem.; Australian Consols, ⅛ to ⅛ prem.; Chartered Australian, ⅜ to ¾ dis.; Burn's Creek, ⅛ dis. to par; Peel River (New), 8½ to 9 prem.; Adelaide Land and Gold, par; Lewis Hill Range, ¾ to ⅛ dis.; Melbourne Gold, ¼ to ⅓; Golden Mountain, ⅛ to ¾ dis.; La Peruvienne, par to ¼ prem.

LEAD ORES

Ticketings for about 100 Tons of Laxey Lead Ore.

Douglas, Isle of Man, February 5.

Pontifex and Wood—purchasers	£25 15 0
Walker, Parker, and Co.	25 3 6
Mather and Co	23 11 0
Newton, Keates, and Co.	24 15 6
John P. Eyton	25 8 0
Trustee of J. T. Treffry	24 11 6
Tamar Smelting Co.	23 16 6
Sims, Willyams, Nevill, and Co.	24 8 0
Locke, Blackett, and Co.	23 17 6

Sold at Aberystwith, February 7th.

Mines.	Tons.	Price per ton.	Purchasers.
East Logylas	80	£17 6 6	Walker, Parker, & Co.
Frongoch	40	17 0 0	ditto

Ticketing at the White Horse Hotel, Holywell, February 10th.

Maesyrerwddu	89	£17 5 6	Walker, Parker, & Co.
Coetia Llys	40	17 17 6	ditto
Deep Level	35	15 15 6	ditto
Merllyn	60	16 16 0	ditto
Talacre	30	17 1 0	Newton, Keates, & Co.
Holywell Level	27	17 2 0	ditto
Dylife	55	16 10 6	Walker, Parker, & Co.
Rheswydol	19	15 6 0	Mather & Co.
Bryn Fedwen	9	15 0 0	Newton, Keates, & Co.
Shallee	24	18 14 6	Walker, Parker, & Co.
East ditto	16	20 10 6	Newton, Keates, & Co.
Cairnsmore	42	15 11 0	ditto
Creetown	7	15 3 6	ditto
Sold on the Mine.			
Bryneisteddfod	43	£15 17 0	Newton, Keates, & Co.
Dylift	31	16 8 6	Walker, Parker, & Co.
Lydford Consols	16	19 8 6	—

BLACK TIN.

Sold on the 4th February.

Mines.	Tons c. q. lbs.	Price.	Amount.	Purchasers.
Wheal Robins	1 16 0 19	£56 10 0	—	—New Blowing.
ditto	0 7 0 24	18 0 0	—	— ditto
Sold on the 5th February.				
Porkellis United	8 0 2 7	£86 5 0	£531 17 2	—Williams & Co.
ditto	2 19 3 17	63 10 0	190 3 8	— ditto
ditto	1 4 1 9	49 0 0	59 12 2	— ditto
West Wheal Towan	9 0 0 0	70 2 6	631 2 6	—Williams.
West Ding Dong	4 6 0 0	68 10 0	294 11 0	— —

COPPER ORES.

Sampled January 26, and sold at Andrew's Hotel, Redruth, February 10.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Wheal Buller	125	£7 2 6	North Wheal Basset	103	£6 6 6
ditto	115	9 5 6	ditto	85	8 10 0
ditto	110	6 17 0	ditto	32	9 12 6
ditto	107	7 9 6	Par Consols	76	13 2 6
ditto	101	6 15 6	ditto	70	7 10 6
ditto	100	7 16 6	ditto	57	10 0 6
ditto	95	6 5 0	West Wh. Basset	58	5 16 0
ditto	90	9 16 0	ditto	46	10 6 0
ditto	60	4 14 6	ditto	40	10 7 0
Carn Brea	124	4 14 6	West Wheal Seton	46	5 13 6
ditto	90	7 2 6	ditto	42	6 3 6
ditto	81	8 8 0	ditto	16	15 17 6
ditto	74	6 7 0	Wheal Trebarvah	60	5 7 0
ditto	69	12 6 6	ditto	20	5 12 0
ditto	64	4 5 6	ditto	13	9 1 6
ditto	49	5 5 0	ditto	7	13 5 0
ditto	48	5 0 6	Tywarnhayle	56	4 16 0
ditto	33	2 0 0	ditto	28	7 2 6
West Treasury	78	6 16 6	Botallack	64	9 0 0
ditto	68	11 15 0	Wheal Speedwell	39	9 14 6
ditto	67	7 8 6	ditto	23	7 8 0
ditto	38	6 19 6	Carvannall	36	5 7 6
ditto	11	3 14 0	ditto	11	15 11 6
Halamanning and Croft Gothal	96	6 18 6	Boscaswell Downs	27	8 6 6
ditto	74	7 12 6	Wheal Abraham	22	0 15 0
ditto	64	5 7 6	ditto	5	0 2 6
ditto	28	9 16 0	Trannack & Bosence	16	5 4 0
Alfred Consols	68	8 11 6	ditto	7	2 19 6
ditto	54	17 2 0	Guskus	23	11 6 0
ditto	49	14 2 6	Wheal Prosper	17	3 18 6
ditto	42	3 17 6	Wheal Agar	15	4 14 0
ditto	14	5 13 0	Wellington Mines	15	5 2 6
ditto	13	8 11 6	Wheal Neptune	9	8 0 6
ditto	5	27 12 0	Wh. Glanville	5	10 5 6
			Wheal Trenance	2	18 10 0

TOTAL PRODUCE.

Wh. Buller	903	£6736 12 0	Wh. Speedwell	62	£549 9 6
Carn Brea	632	4437 18 6	Carvannall	47	364 16 6
W. W. Treasury	262	2134 11 6	Boscaswell Downs	27	224 15 6
Halamanning & Croft Gothal	262	1847 9 0	Wh. Abraham	27	17 2 6
Alfred Consols	245	2689 19 0	Trannack and Bosence	23	194 0 6
North Wh. Basset	220	1681 19 6	Guskus	23	259 18 0
Par Consols	203	2095 13 6	Wh. Prosper	17	66 14 6
West Wh. Basset	141	1224 4 0	Wh. Agar	15	70 10 0
West Wh. Seton	104	774 8 0	Wellington Mine	15	75 17 6
Wheal Trebarvah	100	643 14 6	Wh. Neptune	9	72 4 6
Tywarnhayle	84	468 6 0	Wh. Glanville	5	51 7 6
Botallack	64	576 0 0	Wh. Trenance	2	37 0 0

Average Standard £157 17 0 | Average Produce 6¾

Average Price per ton £7 14 6

Quantity of Ore 3495 tons | Quantity of Fine Copper, 233 tons 5 cwts.

Amount of Money £27,205 12 0

LAST SALE.—Average Standard £161 18 0.—Average Produce 6⅛

Standard of corresponding sale last month, 152*l*. 5*s*.—Produce, 6¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	406	£3300 7 2
Vivian and Sons	726	5108 3 3
Freeman and Co.	142	1423 13 6
Grenfell and Sons	443	2954 18 9
Sims, Willyams, and Co.	347	2328 15 3
Williams, Foster, and Co.	570	5301 19 11
English and Australian Co.	206	1961 18 6
Mason and Elkington	266	2302 8 8
F. Bankart	220	1150 16 0
Copper Miners' Company	169	1172 10 0
Total tons	3495	£27,205 12 0

Copper ores for sale on Thursday next, at Lenderyou's Hotel, Truro.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria 2147—Marke Valley 411—West Caradon 378—Holmbush 360—Phœnix Mines 280—Pembroke and East Crinnis 185—Bedford United 162—Wheal Arthur 157—Wheal Friendship 136—Fowey Consols 131—Prideaux Wood 80—Tavy Consols 76—West Fowey Consols 67—Tamar Slag 48—East Wh. Unity Wood 9.—Total, 4027 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—United Mines 910—Tresavean 423—Creegbraws 362—South Tolgus 248—South Caradon 245—Wheal Comfort 228—Par Consols 164—Gonamena 102—West Wheal Damsel 100—North Wheal Damsel 59—Wheal Mary 30—West Trethellan 23—Wheal Brewer 21—North Wheal Buller 8—Great Crinnis 5—Richards's Ore 5—Great Wheal Towan 4.—Total, 2936.

Notices to Correspondents.

GREAT ONSLOW CONSOLS.—SIR: Having been solicited to purchase an interest in this mine, I have looked in vain through your Journal for some account of the workings being carried on, and the market value of the shares; and enquiries through my London brokers proving equally unsuccessful, I address this note, in the hope that some one of your correspondents may feel disposed to oblige me with their opinion of the desirability of investing my money in the adventure.—T. R. G.: *Oxford, Feb.* 9.

CAWSON HILL MINING COMPANY.—SIR: In reply to the enquiry in your last Journal, I shall be happy to supply any gentleman with information respecting this company; which, I may add, is a perfectly *bona fide* concern.—WILLIAM SIMPSON: *Newport, Lincoln, Feb.* 8.

WHEAL PROCKTER.—SIR: In your last Journal my name appears as one of the managing committee in Wheal Prockter Silver-Lead Mine, St. Kew, Cornwall. As I am neither one of the managing committee or even a shareholder, I have to request you will not again publish my name in connection with the mine.—W. PROCKTER, *Launceston, Feb.* 8.

WHEAL PROCKTER.—"Inquirer" will be obliged by being informed whether the report of Professor Ansted on this mine, which appeared in last week's *Mining Journal*, purporting to have been made in answer to a request addressed to him on the 25th Jan., is not an exact copy of the report written by the same gentleman, and dated 7th of April, 1848, on the Antimony and Silver-Lead Mines, near St. Teath, Cornwall, which at the time named had been recently offered to the public, in 1000 shares, at 5*l.* each.

"A. B." (Liverpool).—The Gold Importation Company was established for purposes in connection with the auriferous discoveries in Australia: it has now lapsed for about six months. The intention of the association was not to work mines or invest capital in machinary; their objects were of a purely mercantile nature,—to purchase gold from the labourers, and to dispose of it in the most profitable markets. The capital proposed to be raised was 100,000*l.* in 40,000 shares of 2*l.* 10s. each, and the profit estimated to be realised was from 15 to 20 per cent. per annum. A board of directors was organised in London, consisting of the following gentlemen—George Barber, William English, Robert Fisher, Henry Meadows, Richard Swift (sheriff of London), Joseph Thompson, and Thomas Winkworth, Esqrs. A colonial direction was likewise appointed, comprising Messrs. James Purvis, Edward F. Jencken, and Louis Barber. The secretary was Mr. C. F. Cotterill; the solicitors Messrs. Wright and Bonner. The offices were in Copthall-court.

THE HITCHINS TESTIMONIAL.—"A Subscriber" (of Tavistock) will learn all he is anxious to know by addressing Mr. Henry Peet, of St. Helen's-place, London. Mr. Peet is honorary secretary to the undertaking, and we understand that a very handsome fund has been already subscribed for the testimonial, which will shortly be presented to Mr. Hitchins.

"P." (Tavistock).—It seems not permissible, under the New Patent Act, even supposing no public use has been made of an invention, to abandon an old application and make a new one before the expiration of the term of provisional protection, and before the *actual publication* of the provisional specification, or any other publication, has taken place; for although the new application would thus be made before the invention was actually published, still in the eye of the law the provisional specification is said to bear date as of the day of application for the patent, which being so, the publication would be adjudged to have taken place long anterior to the second or new application for a patent, and from taking away its novelty would be fatal to the validity of the patent. On the other hand, it may be said, that as in many special cases the above view would work very inequitably for inventors, that justice requires the period of actual publication only to be taken into account.

SIR,—Will any one of the readers of your important Journal have the goodness to inform the writer what amount of capital would be required to establish a work capable of smelting 1000 tons of copper ore per week?—C. D.: *Birmingham, Feb.* 7.

"J. J."—The discrepancy arises from the fact of our correspondent being a buyer in one mine and a seller in the other. We endeavour to procure accurate prices; but there will always be a slight difference between the price which can be obtained for shares on a forced sale, and that at which they are to be purchased. The increased price demanded for shares in the Tavistock Mine was in consequence of a very considerable improvement taking place.

"J." (Birmingham).—The sales of black tin are regularly reported: in the Journal of the 29th Jan. appeared the particulars of three parcels, which realised respectively 63*l.* 10s., 60*l.* 10s., and 55*l.* 10s. per ton. We invariably notice the prices at which shares are transferred, when forwarded, but the office being in Birmingham, business may take place of which we do not hear. If "J" be a shareholder, a letter to the secretary will elicit all necessary information respecting the constitution of the company and its management.

"John Bull" is informed that our correspondent signs "of Truro," inferring that to be his place of permanent residence, though he may be frequently absent from that place, and for long intervals. We dare say "John Bull" will not have long to wait for the appearance of another letter from our intelligent correspondent.

"M. A." (Clapton).—There is such a mineral as that alluded to: red oxide of zinc is of a beautiful blood, and sometimes aurora red colour, but has hitherto been found only in North America, where it occurs in iron mines in New Jersey, at the Franklin Mines, Sterling; and Rutgers Mines, near Sparta. It often assumes a micaceous form, embedded in a white oxide of zinc, which in the same specimen is frequently found adhering to black oxide of iron. It is soluble in mineral acids, infusible without addition before the blowpipe; but, with sub-borate of soda, melts into a transparent yellow bead. When pounded, mixed with potash, and exposed to heat, it fuses into an emerald green glass, which, on solution, gives the same colour to water; which a few drops of nitric, sulphuric, or hydro-chloric acid immediately changes into a rose red.

"T. M. T." (Dover).—The Panama Railroad is completed from Aspinwall, Navy or Simon Bay, on the Atlantic, to Barbucoas, a distance of 26 miles, and within five miles of Gorgona: 23 miles have yet to be done—the whole length will, therefore, be 49 miles. The contract for completing the unfinished 23 miles has been taken by a gentleman named Story.

"M. D."—The office of the Great Wheal Vor Mining Company is at 17, Gracechurch-street, London; the detailed prospectus appeared in the Journal of the 1st. Jan.

THE COST-BOOK SYSTEM.—The difficulty of answering this question arises chiefly from its generality. The Cost-book System, as established in Cornwall previously to modern innovation, certainly required that the transfers of all shares should be registered, and such a step was rendered practically necessary, in order to vote, receive dividends, or interfere with the management on any necessary occasion. Such registration was, in its conception, required for the purpose of enforcing calls, and therefore "*non registration*" was clearly contrary to the spirit of the time-hallowed notion of cost-book. Of late years, however, even within Cornwall, several newly-started *cost-book* companies have bid for public favour on the ground that "*the shares are transferable without registration.*" That such an arrangement is illegal *per se*, or that the company was not a cost-book company, it would no doubt be very difficult to maintain; but that such a clause is inconvenient and inimical to the best interest of a responsible proprietary it is very easy to demonstrate. At all events, cautious capitalists do not in general consider that such clause at all advances or protects their interests. On one point, however, such an arrangement has a decidedly injurious tendency, and that is on the occasion of a *sale* of shares to a purchaser, who repents of his bargain and refuses to complete. In such a case, if the vendor have not clear and creditable evidence that the purchaser was cognizant of the non-registration, and agreed to take the shares, notwithstanding he, the purchaser, cannot be compelled to complete his purchase, which if prices fall may be serious. This point was solemnly decided in the very valuable case of Curling *v.* Flight, which went beyond the above point, as to title between the vendor and purchaser, and settled that the vendor was bound also to show some title in himself and his co-adventurers *to the mine* of which he had contracted to sell shares. The case, so far as regards the question before us, was this—On a contract for the sale of one share in a mine, described as "1-192d part, or half-share, of the Tresevean Mine, in the district of Gwennap, in the county of Cornwall," the Court of Chancery held that it is *necessary* for the vendor to show a title to the *specified share* of the mine, as *between himself and his co-adventurers*. In Curling *v.* Flight, the vendor, *by means of the registration* of the transfers in the cost-book, &c., was fortunately enabled to provide the purchaser with extracts of the books of the purser of the mines and from the cost-book, certifying the rights and interests of the vendor, and that his name stood registered as the proprietor of the shares comprised in the contract. Now, if the Tresavean Mine had been established on the provision that "*the shares were transferable without registration*," it must be conceded that the vendor would not have been able to have made out his title from the authentic sources he did, and that the judgment of the court must have been adverse to him on this point. There are other legal reasons why non-registration is strongly to be deprecated, but which are too lengthy and abstruse to be now entered upon.

"R. B." (Edinburgh).—We never give an opinion as to any particular mine "presenting a desirable means for *bona fide* investment;" but in all cases where such information is required, we recommend enquiry being made of some competent authority.

MINING GLOSSARY.—For the convenience of new adventurers, and others requiring the information, we have prepared a Glossary of English and Foreign Mining and Smelting Terms: it is neatly printed in a useful form, and can be obtained through any bookseller, or at our office, price 2s.

THE COST-BOOK SYSTEM.—So much interest being evinced for information respecting the Cost-book System, we have reprinted, as a pamphlet, the paper descriptive of its principles and practice, which appeared in the *Mining Journal*. Copies can be procured through any bookseller or newsman, or at our office, price 6d.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, FEBRUARY 12, 1853.

In another column, we have given a general summary of the metallic produce of England, Scotland, and Ireland, from the Great Exhibition Report; and in connection with it we could not select a more fitting opportunity to call attention to a pamphlet on the *Ironmaking Resources of Great Britain*, by S. H. BLACKWELL, Esq., F.G.S., of Dudley. Our readers may remember that, in the MINING JOURNAL of 10th April last, we inserted a report of a lecture delivered by Mr. BLACKWELL, at the Society of Arts, on the "Ironmaking Resources of Great Britain;" and the publication under notice is a *resumé* of the subject—the original matter having been carefully revised and enlarged. Having called attention to the principal features of the Great Exhibition of 1851, the importance of its influence on the arts, sciences, and manufactures, to what an extent the raising of that building itself, as if by magic, showed the ironmaking resources of the country—the extraordinary degree of perfection to which some of the branches had attained, the author takes a rapid review of the rise and progress of our iron manufactures, and divides the history of the iron manufacture into two parts; the first extending from the earliest historical period of which we possess notice down to the time of the introduction of coal as the fuel used in smelting; and the second, from that period down to the present time. In DUD DUDLEY'S time (1615), he estimated there were 300 furnaces, and iron-works, manufacturing with charcoal probably 180,000 tons per annum. In 1740, from the restriction of the charcoal supplies, and other causes, it had declined to 17,350 tons—the produce of 59 furnaces; and this period to about 1750 formed an epoch in the iron manufacture of the country by the discovery and perfecting, by M. CORT, of the method of smelting iron with coal. By 1788, the annual produce had risen to nearly 70,000 tons; in 1800, to 180,000 tons; in 1825, to 600,000 tons; and in 1851 to 2,500,000 tons. Of this enormous quantity, South Wales produced upwards of 750,000 tons; Scotland, 775,000 tons; South Staffordshire and Worcestershire, nearly 600,000 tons; and the other districts about 400,000 tons—one-third of which is converted into castings, or exported as pigs, and two-thirds into wrought or malleable iron.

In endeavouring to ascertain the principal causes of this enormous increase in the quantity of iron produced, the author traces it—1. By the increased demand occasioned by the rapid extension of all the arts and manufactures, and especially by the introduction of railways.—2. To the improved machinery and apparatus employed.—3. To the vast and almost inexhaustible supplies of coal and iron which our mineral fields contain. Attention is then called to the important fact, that the same shafts in the coal-fields of North and South Wales, Staffordshire, Derbyshire, and Yorkshire, which produce the ore, producing also the coal and the necessary flux; while in no other country does this union exist to the same extent.

Among the descriptions of the various iron ores in this country, very particular attention is bestowed upon that of Northamptonshire, which we have had occasion several times to notice. Before its existence in this county of any commercial value was known, the same was discovered at Middlesborough-upon-Tees, where it was discovered by a workman, who noticed a considerable deposit of iron at the bottom of a spring issuing from one of its beds. At that time it was known, geologically, that the same bed extended through Yorkshire, Lincolnshire, Rutlandshire, Oxfordshire, Northamptonshire, and Dorsetshire, to the south coast, between Lyme Regis and Dorchester, where, being turned aside by the granite of Devon, it is prolonged into France. This ore is found as much as 15 ft. thick, produces 30 per cent. of iron, and for all practical purposes is inexhaustible.

In the MINING JOURNAL of the 8th Jan., a correspondent signing himself "An Inquirer," states decidedly that this ore contains "no quartz or silica." We assure him he is greatly in error, as the following analyses of four kinds found in the formation will show:—Green carbonate contains protoxide of iron, 35·53; peroxide, 19·34; silica, 7·50; alumina, 7·90; lime, 5·50; magnesia, 1·97; oxide of manganese, 0·28; carbonic acid and water, 21·98=100. The hydrated oxide contains peroxide iron, 49·0; carbonate of lime, 24·10; ditto magnesia, 5·50; silica, 9·70; alumina, 1·80; oxide of manganese, 0·30; water, 9·60=100. Another specimen of hydrated oxide contains silica, 43·70; alumina, 6·0; sesqui-oxide of iron, 41·30; and water, 9·0=100. The white carbonate contains protoxide of iron, 44·46; peroxide, 1·70; lime, 3·22; magnesia, 1·79; oxide of manganese, 0·23; silica, 13·57; alumina, 1·93; carbonic acid, 29·20; organic matter, 0·80; and water, 3·10=100. This shows the extreme variety of the ore; the complication of the analysis; and the careful selection required. It is most largely developed, and of the best quality, along the Northampton and Peterborough line of railway, from Higham Ferrers to Hardingstone, near Northampton, and again from Gayton, near Blisworth, to Towcester. It has also been traced into Oxfordshire, but it is doubtful whether this quality continues at all equal to that of the Northampton district; and northward it is much deteriorated and often entirely lost.

In the category of the difficulties attending the progress of the iron manufacture, are the riots which ensued on the introduction of coal for smelting; the loss occasioned by the escape of the waste gases, now so much turned to good account, and the general ignorance as to the value of ores dissimilar in appearance to those generally worked; all which, however, by the present enlightenment of every class, will very soon be avoided. From the improved modes of manufacture now adopted in the United States, Styria, and Carinthia, with other circumstances which might be advanced, prove distinctly how dangerous it will be to repose upon our presumed pre-eminence in our iron-making resources over other countries, depending upon that, and that alone, to support the position we now hold; but that we must take such measures, and make such improvements, as shall be essential to our success in every detail of the manufacture, not for the present only, but equally for the future.

The price of copper has given an impetus to mining; and it is but just to expect that the improvement in the system under which this industry is developed will be concomitant with the progressive value of its products. One hundred and fifteen pounds, fifteen shillings, and five pence per ton for the metal is surely a stake worth contending for; and to stimulate still further the energies of all concerned in the exploitation of this mineral, it can be, without fear of contradiction, averred that, considering the arrest of the Australian mines, the diversion of speculative labour to the gold diggings, and the increased demand for copper—for trade is anticipative when the existing price of any material suddenly exceeds a certain standard, and that standard is now based and dependent on the crude staple experience of the community whose best interests are derivable commercially, from mining enterprise—it would take five years, with a two-fold annual result, at least, compared with the present, before the produce of this department of labour could be lowered to a price equal to the monetary convenience of the public, although the auriferous current has set in so richly and steadily upon us. The price of copper at this moment is immense, because the productive power of our country, in the mineral districts, has not been exercised fully; the error thus committed being like a dilemma with two horns, the one pointing to and vulnerating the commercial body through its apathy in supporting the industry from which it derived its strength—the other, testing its acuteness on the vagarious scepticism which has induced such numbers of our capitalists and speculators to support foreign mining to the detriment of our own. Unfortunately, it is now evident that had the resources of the counties of Devon and Cornwall alone been acted upon with the energetic influence natural to our national character, and consistent with the spirit of prudential enterprise, instead of looking to our colonies, to America, or to any other mineralised countries, we should have at this moment the advantage of possessing at our doors piles of cupiferous riches, which would bring thousands—nay, millions—of gold into this country, and would secure to us for years a tendency, in an increased degree, of mineral commerce, fulfilling the preceptial axiom, that by the furtherance of our own interests we are at all times, through example and that spirit of competition inherent in man, strengthening and making the more universally valuable that commerce upon which the greatness of four nation depends. No country can be prosperous where its exports do not exceed its imports. The importation of pig and sheet-lead, in the year ended Jan. 5, 1852, amounted to 14,591 tons 0 cwt. 0 qr. 3 lbs.; lead ore, 2790 tons 6 cwts. 3 qrs. 1 lb. The exportation of the same metal reached, of pig or rolled lead, 18,029 tons; in pig or sheet lead, 4287 tons 11 cwts. There are other varieties of the mineral which we do not allude to. Importation of copper ore, 35,683 tons 18 cwts. 0 qr. 17 lbs.; regulus, 6442 tons 5 cwts. 2 qrs. 11 lbs; unwrought in bricks and pigs, loose copper, and all cast copper, 1093 tons 1 cwt. 1 qr. 6 lbs.; old, fit only for re-manufacture, 524 tons 8 lbs.; plates and coin, 22 tons 13 cwt. 2 qrs. 27 lbs. Value in all of copper manufactures and copper plates engraved, 30,073*l.* 13s. 9d. Total export of British copper ore, 1 ton 3 cwts.; unwrought in bricks, pigs, &c., 5612 tons 5 cwts. coin, 75 tons 10 cwts.; sheets, nails, &c., 11,050 tons 13 cwts.; together with wire and other wrought material, amounting in all to 17,555 tons 11 cwts.

The value of copper manufactures and copper plates engraved in foreign metal amounted to 24,779*l.* Here we have a demand far and away exceeding the supply—our own manufactorial wants are not, and cannot be, fully ministered to; and had we the means—we should say, had we sufficient providence in securing from our own resources a two-fold quantity for the foreign market, we should be still short of the manufactured stock which it requires, and is ready to purchase with hard cash.

That the standard price of copper is too high for the mercantile requirements of the country is a serious, indubitable fact; and that the supply of the British and foreign material is fated to be for a considerable period far below the demand, constitutes a commercial exigence, in which the entire metal interest is vitally involved. It must not be forgotten that lead, zinc, tin, with the various metallurgical combinations which enter into manufactures, will hold relative positions in value with copper, and, therefore, the monied interest in the market, which in times of plenty never ceased to buy largely, hoard up, and speculate for the rise, have now more than ever inducements to exalt the standard against the retailer. As time advances this evil will be felt the more, owing to the limited supply as compared with the necessities of trade; CASH will be every day opposed to CREDIT, however commercially good; and every gradation of metallic facture will become successively affected by this state of things, until the humblest operative will experience a dearth of labour, even in the midst of vast monied prosperity. How to guard against such an anomaly comes now to be considered.

How is the supply of ore to be increased at home, and where abroad are we to look for the material we so much require? Australia has her mining population at the "diggings," seeking for more available and more costly riches than her Burra Burra and other mines could produce—Russia is herself a monopoliser; and there is not a really *commercial* country on the world's chart wherein the spirit of enterprise is not excited to the extent of "holding for the rise in metals." What, then, is to be done? The reply that most readily presents itself is, and it is one to which experience points—we must put our own shoulders to the wheel. Before us lie the vast mineral tracts of Cornwall and Devon; the craigs, mountains, and valleys of North and South Wales are highly mineralised; and Ireland is even now fast revealing her rich deposits to English capital. We should be sorry, indeed, to depreciate the speculation which has been for some time directed to the gold regions; and we must not be understood as doing so, when we say that within our more immediate reach at home exist treasures which, being more readily available, must naturally be more remunerative to small capitalists, the quick return of whose money should be for them the best test of investment. Numbers—nay, many thousands—have been for the last two years amusing themselves blowing golden bubbles, who, if they had but invested only one-third of the sum which they supplied to Australian and Californian projects, a larger return would now be accruing to them than they can rationally expect from enterprises carried on in places at so great a distance, where considerable time must elapse before machinery and systematic operations can possibly be brought to bear on the object of their enterprise.

The large capitalist can afford to remain, as it is said, out of his money, and to await results; the small monied man cannot attempt to do so, without loss; and were it not presumptuous to dictate individual conduct, we should indicate the course most profitable, under such circumstances, to be a lessening of speculative risk by dividing between a few carefully-chosen and well-managed young mines at home the sums which are so readily paid, even to the last shilling, into the coffers of companies for the exploration of gold tracts abroad. Small capitalists would do much better, we venture to say, were they to divide, at the least, their speculation between home and foreign mines: the former are subject to their personal supervision, and offer prompt advantages and perspective profits second to none; the latter must be accorded time before they can yield their golden treasure to the hand. Following still further the subject on which we have entered, the prospects of American copper mining present themselves. The regions around Lake Superior, it cannot be doubted, possess vast deposits of copper of singular richness; and the State of Virginia is every day strengthening the confidence of all who have undertaken to explore her mineral tracts. The specimens of copper taken by mining inspectors from the lodes and masses discovered are almost of native richness; and what adds to the great value of enterprise in this locality, is the existence of extensive bituminous coal-fields applicable to smelting. It is needless to remark, that the great proximity of Virginia to this country, together with the security given to the capital invested by the American laws, and the general state of society, forms a basis for safe speculation not inferior to any which we can boast of; and it is to be anticipated that our home metal market will, during the next year receive, as the fruits of British investment, large supplies from this Transatlantic Cornwall. Information of a very gratifying nature has been communicated to us, that a Virginian company, lately formed in London, and which united to its gold mining interest the allocation of 75,000 acres of landed property, have been fortunate to discover, through their agents who went out from London to take formal possession, both copper and coal on the property. This is the L'AIGLE D'OR COMPANY; but we have no doubt that the other enterprises entered upon in this State will, such is the highly mineralised character of its geological formation, make further and as valuable discoveries. Tuscany is also yielding largely to the copper miner. The deposits are found extensive, at a moderate depth, and of excellent quality. Here, again, is found all-powerful in the sphere of labour, the spirit of true British industry, and we the more satisfactorily refer to this fact, from the conviction that large importations of copper ore will reach us therefrom in aid of our home consumption.

With regard to gold mines in Australia, it is to be hoped that the Colonial Government will afford greater facilities to the grantees and possessors in fee, through purchase, of auriferous land. It is not generally known that, except in one district, licences are required by the possessors of land and their labourers for exploring the same in search of gold. These licences are in many instances too stringent and vexatious, and, therefore require modification; for in a country in which labour is so dear, it is but adding to the evil to hamper it with more than a mere necessary restriction in favour of the revenue of the country. By a gold regulation, bearing date "Colonial Secretary's Office, October 7, 1851," the applicant for a right to work "*half a mile of land in the course of a vein, with 50 yards reserved on each side of such vein for building and other purposes,*" is obliged "*to enter into a bond, binding himself and two or more sufficient sureties,* to the satisfaction of the Government, &c., in the sum of 2000*l.*, to pay a royalty of 10 per cent." on all gold found on his claim. Buildings and machinery, as well as all improvements, to be considered as an additional security; and the Government officer, for the protection of his revenue, shall not only be allowed to live on the land in the neighbourhood of the works, but shall be permitted every freedom of access: and further, it is laid down, that the bond shall be considered void should the owner of the claim not employ at least *twenty* persons thereon within six months of the acceptance of his application for the same. Then follow other minor details, through the non-observance of any of which he may lose his right, leaving the land open to the selection of others. Various are the objections advanced against this system by those who have risked all in the gold-fields; and it is to be hoped that the Government will become more accessible to the expostulations of settlers than it has hitherto been. BRITISH INDUSTRY should be fostered and encouraged in our gold regions; not leg-bolted at every step by petty official technicalities and observances. Had the local authorities from the first applied themselves to protective measures, and the maintenance of order in a young society, as diligently as they did in framing laws for the exaction of revenue from the gold-seeker's industry, it is whispered things would now wear a more satisfactory aspect. We shall watch the changes which we hear are about taking place in the colonial mining code, and set down their purport and principle for the information of the public. For the present, copper mining should engross the attention of the mining interest of this country. In the depths of Cornwall and Devon are hoards exhaustless and priceless; it needs no gnomic "glaumaric" to point them out. There is wanting but a slight degree of public support—*steady* and *uncompromising*—to enable our miners to send to surface five-fold products, and to insure adequate supplies to the metal markets; and while at all times desirous to foster to the fullest extent the speculative spirit which exists in our auriferous enterprises, we would suggest that there are riches beneath our footsteps unexplored; that encouragement to the home pick and gad is an alchymy by which our baser metals can be, *presto*, turned to gold, and through which returns can be insured worthy of *British speculation*.

At the usual monthly meeting of the members of the BANKING INSTITUTE, on Tuesday evening, an interesting paper, prepared by WILLIAM JOHN LAWSON, Esq., author of the "History of Banking," on Bank Charters, was read by that gentleman. HENRY LUARD, Esq., the manager of the London and County Bank, took the chair, and observed, that he recognized the position he occupied that evening, not as due to himself, but intended as an honour to the establishment over which he presided. Mr. LAWSON then read the paper, which gave evidence of considerable research in banking history, and, by its lengthened statistical details, seemed to show the issuing bank charters to be productive of disadvantage rather than good; and that it would be much more advisable that the liability of the shareholders of joint-stock banks should be unlimited. He took occasion to observe, that he saw no reason why a distinction should be made in favour of the establishments now forming for Australia, the shareholders and board of management residing here.

Mr. GILBART, of the London and Westminster Bank, pointed out the various results of bank charters, and brought into strong contrast those of the Indian, Irish, and Scotch banks, with the American. He concluded an address of considerable ability, by declaring that his experience induce the feeling that it would be better bank charters should not be granted but that such establishments should be considered in the light of a gend,

ral partnership. The Chairman said, that in his opinion one of the worst features connected with the charter, was the continued changing of the board of management. They all knew that banking was not learnt in one day; and it was very inconvenient that, just when a director had obtained sufficient insight into banking operations to be of service to the establishment with which he might be connected, his term of office should be held to have expired, and he should be obliged to withdraw, to be succeeded by some gentleman who required a similar apprenticeship. Very little discussion followed; the only suggestion being, as to whether a responsibility, to the extent of two or three times the value of a proprietor's share, would not be sufficient, and open the field to men of greater wealth and higher standing, who now refused connection with such institutions from a dread of extreme liability. This subject, however, was not discussed—indeed, the feeling of the meeting seemed to be altogether in favour of the abolition of bank charters. A vote of thanks was passed unanimously to Mr. LAWSON, who suitably acknowledged the same. Mr. GILBART then observed, that he could not permit the meeting to separate, without recording their just sense of the courteous conduct of the chairman on this, as on all occasions. The fact must be highly gratifying to the feelings of that gentleman, that his establishment should be the first joint-stock bank to set so good an example, in regard to a due consideration for the welfare and intellectual improvement of its officers. He moved that a vote of thanks be accorded the chairman, which having been unanimously passed, the meeting broke up.

In the MINING JOURNAL of 22d Jan. last, we noticed at great length a pamphlet by Dr. CULLEN, on the practicability and importance of constructing a ship canal across the Isthmus of Darien; and it is with much gratification we are now enabled to notice, for the first time, the prospectus of a company just formed for the purpose of carrying out the undertaking in that uncompromising and magnificent completeness which its importance demands. That the Isthmus of Darien admitted of a communication of the kind between Port Escoscés, or Scotch Harbour, and the Bay of Caledonia on the Atlantic, and the Gulf of San Miguel on the Pacific, by way of the River Savana, was first announced in this country by Dr. CULLEN in articles in the *Daily News* of May 17, 1850, the MINING JOURNAL of May 18, 1850, and several subsequent numbers, in a geological controversy with Mr. EVAN HOPKINS, C.E., and was first urged by Dr. CULLEN on Sir CHAS. FOX and his partner, Mr. J. HENDERSON, which gentlemen, with their usual scientific foresight and spirit of enterprise, resolved to dispatch engineers to the spot, for the purpose of examining the country, and reporting on the feasibility of the undertaking. The result has proved that the views of Dr. CULLEN were completely correct. Mr. LIONEL GISBORNE, C.E., who has surveyed the Isthmus and its harbours, states in his report that the distance between the two seas, as to tidal influence, is only 30 miles—that the mean water of the two oceans is nearly level, but that on the Pacific side the tide rises from 22 feet to 25 feet; on the Atlantic, from 14 inches to 18 inches; and thus, the Pacific rising above and falling below the level of the Atlantic, there will be, during every tide, a current flowing each way, whose greatest velocity will not exceed three miles per hour. This is important, as the trade will naturally follow the flow of the tide, the meeting of vessels be obviated, and the canal kept free from deposit. That the only engineering question is the removal of a large mass of material, and the time to do it in, for which the natural formation of the country is highly favourable. In the calculation of cost, Mr. GISBORNE has estimated all the cutting as rock, while a large proportion is alluvial soil, clay, and gravel; the general works, 75 per cent. above the cost in England, and full allowance made for imported labour and preliminary expenses. The total capital, therefore, required, will be—formation of canal, 12,000,000*l.*; interest during formation of the works, estimated at five years, 2,000,000*l.*; preliminary expenses, importing labour, purchase of land, &c., 1,000,000*l.*=15,000,000*l.*

In naming this amount of capital the promoters propose in the first instance, to take only a deposit of 10s. per share, which 75,000*l.* will cover the preliminary expenses already incurred, pay the deposit required by the terms of the concession, and prosecute such further surveys, investigations, and negociations, with the several governments interested, as may be deemed necessary. Sir CHARLES FOX, Mr. HENDERSON, Mr. BRASSEY, and Dr. CULLEN have applied to the Congress of New Granada for a concession of territory, and have obtained a grant of 200,000 acres between Mosquitos and the western mouth of the Atrato, for canal, railway, or road, conditional on a deposit of 24,000*l.*, to be returned on the opening of the communication, and this was accompanied by assurances of cordial co-operation. Negociations have also been opened by these gentlemen with the governments of England and the United States, who are highly favourable to the project.

The vast importance of the undertaking has long made it a subject of anxious attention to all civilised nations; a project for the establishment of a colony in Darien was brought under public notice in 1695 by Mr. PATERSON, the founder of the Bank of England, who obtained an Act of Parliament, which was frustrated by the East India Company. The requirements of the age more than ever demand this inter-oceanic junction; and as every nation is interested in it, both politically and commercially, and as the promoters are some of the most wealthy and influential capitalists in the kingdom, we have little doubt it will receive the cordial support of the civilised world.

In the numerous applications of science which have been attempted to be introduced for reducing the cost of fuel in generating steam as a motive-power, or superseding it entirely, none of the experiments have hitherto been attended with the success calculated upon. The principle propounded by Captain ERICSSON, of propelling ships by heated atmospheric air, now being carried out on a large scale in America, and on which the attention of the scientific world is so expectantly rivetted, will, we fear, not produce those satisfactory results which the promoters so confidently expect; and in another column will be found the report of a lecture, delivered daily at the Polytechnic Institution, by Mr. GEORGE CRISPE, in which, while he does full justice to the ingenuity, merit, and scientific attainments of the inventor, shows there are at least mechanical objections which it will be found difficult to overcome. These are, principally, the enormous size of the cylinders, and vast extent of piston surface, involving great first cost, with increased risk of breakage, and difficulty of lubrication. Also that no increase of power can be obtained by the same cylinders, but to effect which they must be extended either in number or in size. Thus, to drive the *Ericsson* at the rate of 15 miles per hour, allowing her speed on the last trial to have been 10 miles, she would require eight cylinders instead of her present four; or if only four are employed, they must be of twice the diameter, and would require twice the amount of fuel; under such circumstances we very much fear she will prove a failure; while the only question which remains is, how far is the principle correct, and to what extent can it be perfected by improved mechanical arrangements? The solution of the problem is still seriously occupying many scientific minds.

In a communication from Mr. DARIUS DAVIDSON of New York, we are informed that about 10 years since, by a combination of peculiar circumstances, he discovered the means of producing a new motive-power, on truly philosophical principles; and, by numerous experiments since that time, has succeeded in constructing an apparatus for practically applying those principles, by which any amount of power can be generated, at a saving of 90 per cent. in fuel as compared with steam. To effect this great desideratum, a combination of heat, air, steam, and a vacuum, will be employed, while the apparatus by which they will be brought into action will be simple, light, economical, durable, and compact, without danger from fire or explosions.

The principles upon which Mr. DAVIDSON bases his invention are—first, that all bodies, solid, liquid, and gaseous, throughout the universe tend to an equilibrium of temperature. Those, possessing *plus* caloric or heat radiate heat, and those possessing *minus* heat or caloric absorb heat until an equilibrium is established.—Second, that all solids, liquids, and gases, when heated, are expanded, made lighter, and tend to ascend, and when cooled are contracted, made heavier, and tend to descend. One great advantage in this new motive-power is stated to be, its applicability to all engines now in use, either in steam-ships or on land and its capability of being worked at any pressure per square inch on the piston desired, without increasing the size of the cylinders; and as the power is double-acting, as in the ordinary steam-engine, cylinders of 9 ft. diameter will be as effective as those in the *Ericsson*, of 14 ft.; at the same time, the bulky boilers necessary in steam-vessels are dispensed with, and the space employed for more profitable purposes. Mr. DAVIDSON states that the success of his new motive-power is placed beyond a doubt, and calls attention to its immense advantages, combined with other improvements, in navigating the ocean rapidly; in the almost costless propulsion of locomotives; in its profit in driving the machinery in factories, rendering the use of water-power hereafter an obsolete idea; its applicability and economy for propelling carriages upon common roads; also in ploughing and harvesting, and other work upon the farm; its advantages and profit to the sugar and cotton planter; also the uses to which it could be applied in every household; and last, though not least, its economy, convenience, and advantage in moving that "lever of civilization"—the printing-press. It is further stated, that in about two months the principles and construction of the engine will be more fully explained, and in the mean time proposals will be received, for one half the patent right, for the several states of the American Union, for England, Ireland, Scotland, Canada, and the various European kingdoms. We cannot close these remarks without calling attention to the fact that Sir GEORGE CAYLEY was really the pioneer in the successful construction of air-engines; for as long back as 1807 he produced one which worked well to 5-horse power, in many respects resembling ERICSSON's, a notice of which will be found in the lecture above alluded to; after which Mr. STIRLING erected one for the Dundee Iron Foundry, in which he employed a mass of wire gauze, which ERICSSON has now patented, under the name of "regeneration," but it has to be seen whether such a patent will hold good.

The advancement or retrogression of the iron trade of the United States of North America, both as to its own manufacture and importation from this country, is a subject of so much importance to the interests of capitalists here, that every information connected with it is always well appreciated by all parties who have capital employed in the development of the ferruginous treasures of our own country, and thus some observations on the state of the trade there will not at the present moment be out of place. Since 1847, the construction of railways in the United States has greatly exceeded all those laid down previously; and while the iron trade in this country was languishing in 1851, the orders from America enabled our manufacturers to produce iron at least without loss. Within the past six months a reaction has taken place, and a very considerable rise in price is the consequence; a circumstance which has proved of much inconvenience to many consumers in the United States, who appear not only much disappointed at the change, but are unable to account for the fact that during such a demand as has existed for some years, both in America and Europe, prices should have remained so much depreciated, and now that the railway mania has subsided the price of the raw material should have become so much enhanced; the answer to which is simply, that any article of consumption is not necessarily in large demand during a mania, but is more likely to become so when trade has settled down into steady activity; and that from the circumstance that many lines of railway, as well as branches, are still in progress, the vast increase in iron shipbuilding and machinery, with extended foreign demand, there is every prospect of a steady increase in orders, and a continuation of, or even advance on, present prices. To show how the iron trade has increased in America, and how inadequate she yet is to meet her own demands from the most prolific internal resources, we give the following official returns for eight years:—

IMPORTATIONS OF BAR-IRON INTO THE UNITED STATES.

Years.	Tons.	Value.	Av. cost.	Duty.	Duties.
1844	37,891	$1,065,582	$28	$25	$947,280
1845	51,188	1,691,748	33	25	1,279,715
1846	24,108	1,127,418	47	25	602,720
1847 (5 months)	8,098	434,316	54	25	202,460
1847 (7 months)	32,085	1,695,173	53	30 per ct.	508,552
1848	81,589	3,679,598	45	ditto	1,103,879
1849	173,457	6,060,068	35	ditto	1,818,020
1850	247,951	7,397,166	30	ditto	2,319,150
1851	254,310	7,324,283	29	ditto	2,197,285
1852	455,149	—	—	ditto	3,272,812

There cannot be a doubt but that a steady increase in the demand will take place, and the American iron manufacturers have not been idle. Within the past year or two, since the important modification of the tariff has put protection out of the question, the iron-manufacturing interest has been gradually recovering from its prostration; and undoubtedly the increase in price will be of immense advantage to those engaged, and stimulate other capitalists to embark in similar enterprises.

We quote from the *Baltimore Price Current* the following table, which exhibits the names, number, location, and capacity, of all the blast furnaces in the State of Maryland. During the late depression and excessive imports, most of these furnaces have been idle, but prices having greatly improved, they are now about going into blast again:—

Furnaces.	No.	Location.	Capacity per annum.
Lonaconing	1	Alleghany co.	3000 tons.
Mount Savage	2	ditto	6000 ,,
Lena	1	ditto	1500 ,,
Antietam	1	Washington co.	2500 ,,
Green Spring	1	ditto	1000 ,,
Blue Ridge	1	Frederick co.	3000 ,,
Catoctin	1	ditto	1500 ,,
Elba	1	Howard co.	1500 ,,
Muir Kirk	1	A. Arundel co.	2000 ,,
Curtis' Creek	1	ditto	2000 ,,
Patuxent	2	ditto	4000 ,,
Elk Ridge	1	ditto	2000 ,,
Nassongo	1	Worcester co.	1500 ,,
Ashland	2	Baltimore co.	7000 ,,
Oregon	1	ditto	4000 ,,
Gunpowder	1	ditto	2500 ,,
Hartford	1	Hartford co.	1500 ,,
La Grange	1	ditto	1000 ,,
Sarah	1	ditto	1500 ,,
Havre de Grace	2	ditto	5000 ,,
Principio	1	Cecil co.	2000 ,,
Maryland	1	Baltimore city	2500 ,,
Laurel	1	ditto	2500 ,,
Chesapeake	1	ditto	2500 ,,
Cedar Point	1	ditto	5000 ,,
Locust Grove	1	ditto	2000 ,,
Total	31	Pig-iron	70,500 ,,

The *New York Herald* gives the annexed comparative statement of the advance in market value during the past six months:—

QUOTATIONS FOR IRON IN THE NEW YORK MARKET.

	July 3, 1852. Per ton.	Oct. 6, 1852. Per ton.	Jan. 5, 1853. Per ton.
Pig, English and Scotch	$19 to $19 75	$26 0 to $27	$30 to $31
Bar, English refined	46 to 46 50	46 50 to 47	68 to 70
Bar, English common	37 to 37 50	44 50 to 45	65 to 68

The NORTH OF IRELAND MINING AND PIER OR HARBOUR COMPANY have just received a report from R. J. MOSTYN, Esq., the gentleman deputed to visit the extensive property possessed by them on the north-east coast of Ireland, with a view to ascertain, as far as able, the value and local circumstances connected with the mineral field of Ballycastle and Murlough Bay. From this we are enabled to collate, that at the first locality several good seams of strong coal have been discovered at a depth of 90 yards, being at least 80 yards below the level of the sea; this being in the immediate vicinity of a bed of ironstone of the first quality. At the North Star, the level has been worked to the extent of 600 yards, 250 of which are now open. At the Gobb, a mineral has been discovered somewhat similar to pyrites, which forms a valuable bleaching liquid, largely used by a chemist, at Ballymoney; in the vicinity of this, fire-clay, of a depth of 7 ft., and under that, iron and coal in large quantities have been found. At Curraghmore, in addition to these minerals, potter's, clay, of good quality, has been discovered. All of the above are workable to a considerable extent by levels driven from the surface. At Carey River, at Ballinygad, there is red hematite, fire-clay, rich ironstone, and coal cropping out to the bed of the river.

At Murlough Bay the same favourable indications are shown, with the addition, that in this district magnificent beds of white limestone exist in large quantities; while over the whole of the property extensive nodules of ironstone are dispersed, and if scientifically explored, there exists but little doubt that large discoveries of anthracite and bituminous coal will be made. So cheap is labour there, that it is confidently anticipated that fire-bricks may be manufactured almost at the incredible low rate of 15s. per thousand. Indications of other valuable minerals have been observed, but as these have only been partially explored, it would be premature at present to give any decided opinion.

We regret that at present we are not able to give the attention to this report which its merits so fully deserve. It must be remembered that this part of Ireland is settled by the descendants of the Scotch Presbyterians, and no ingredient of the Celt enters into the composition of the inhabitants, possessing as they do the love of order, frugality, and habits of industry, derived from their Caledonian progenitors Labour is abundant, and the means of living cheap; the country settled, nor likely to be vexed by political differences, it is nearest to Scotland, and the property possessing an extensive seaboard, offers facilities for the construction of a pier or harbour which are seldom met with.

The development of an enterprise of such magnitude, while it cannot fail to be remunerative to the shareholders, must be advantageous to the country, and it is only a matter of surprise that so much wealth, almost lying at our own doors, and in an integral part of the United Kingdom, should so long have been allowed to remain neglected. We will not here attempt to analyse the circumstances which have caused this apathy, nor is it our province to discuss them.

By developing the industrial resources of the district, capital will be diffused, a great want will be remedied, and we trust the North of Ireland Mining and Pier or Harbour Company will realise the truism we have so often enunciated—that there is more to be gained by safe and sound investment at home than by glittering and dubious adventures abroad.

Elsewhere in our columns, this day, will be found the proceedings of the INSTITUTION OF CIVIL ENGINEERS during their two last evenings of meeting, and also a communication, relative to an elaborate paper by our respected and talented correspondent, Mr. JOSHUA RICHARDSON, C.E., of Neath, on the "Pneumatics of Mines"—a summary of which was inserted in the MINING JOURNAL of 11th Sept. last; a most interesting discussion on which took place on Tuesday evening It will, we think, appear apparent that a very marked and increasing interest is being taken in this difficult, but interesting and important subject, by every class whose co-operation and assistance is the best capacitated to ameliorate the condition of the collier, insure his best interests, and, by making him alive to the dangers which surround him, render him less liable to the effects of those dreadful catastrophes which are unhappily of such frequent occurrence. On the other hand, it is evident that science and art, though perhaps slowly, are surely at work for the discovery of the best means of conducting the practical operations of the coal mine, with the greatest amount of safety to the men, least cost, and largest return to the employer. It will be seen that every detail connected with colliery works was ably discussed; the amount of air necessary for thorough ventilation; best mode of supplying it; the various chemical and mechanical means to effect that object; the several instruments which should be constantly in use; safety-lamps, and what is termed "natural ventilation," all went through searching and highly interesting investigations. Attention was particularly directed to the Northern Institute of Mining Engineers, recently established at Newcastle-upon-Tyne, under the presidency of Mr. NICHOLAS WOOD, M.I.C.E.; and it was generally very emphatically urged that, whatever improvements may be effected by science in colliery development, no certain dependence can be placed on any mode of operation, without a thorough system of mining education is established, on similar principles to those on the continent. Establish the means for the practical training of young men as colliery viewers, and, by their watchfulness in the mine, with the aid of science and chemistry without, there is every reason to believe a vast decrease in the number of accidents would be the result.

[FROM A CORRESPONDENT.]

A most interesting discussion, on the perfect ventilation of coal mines, and consequently the prevention of the so frequent recurrence of those awful calamities which desolate whole districts, and affect the public mind with so much horror, took place at the Institution of Civil Engineers, on Tuesday evening. This discussion arose from the reading, at the previous meeting of the members, an elaborate paper on the "Pneumatics of Mines," by Mr. JOSHUA RICHARDSON, C.E., of Neath. In commencing, Mr. MACKWORTH, the Government Inspector for South Wales, entered into a dissertation on the various details of the subject: he showed that although no two mines could be found the same under all the circumstances, still he thought, by careful observation and analogy, certain rules might be established by which safety might be at least promoted, if not secured, in all collieries. He bore testimony to the talent and experience of the author of the paper, and to his continuous zeal and persevering exertions to improve the working of the mines in his district, and to secure the health of the miner, and prevent danger to human life. Although quite impossible to say what quantity of air was or was not necessary for complete ventilation in every mine, still his experience taught him that he might take, as a minimum, 100 cubit feet per man per minute. On the subject of the best means of admitting this air, he thought these discussions generally had been carried on with a view to show the superiority of this or that mode of ventilation, rather than as to which was the most proper, under peculiar circumstances, for it was clear that what was beneficial, and would act advantageously at one mine, would be perfectly useless, or perhaps even injurious, at another. In the winter season, when the temperature of the downcast shaft was at about 40°, and that of the upcast 65°, natural ventilation was going on, the amount of which should be well ascertained, and the necessary quantity made up by artificial means. The furnace and the steam-jet appeared almost to engross the sole attention in this country, but he thought it would be highly desirable if gentlemen connected with collieries would make themselves better acquainted with the various modes of mechanical ventilation.

Mr. MACKWORTH then described the "water blast," much used in the Hartz, and which, under certain conditions, was highly effective. The pneumatic screw, GURNEY's steam-jet, COMBE's curved arm, and various blowing fans used in Belgium, and STRUVE's ventilator, were described, with details of their mechanical effect in action; animadverted on the use and value of the safety-lamp; the necessity of coursing the air towards the roof to dislodge the carburetted hydrogen, and numerous other details, fully evincing that he had paid much care and attention to the subject, and had reaped a full harvest of information from his observations and experience .

Mr. GIBBS considered that, while it was undoubtedly highly necessary to guard against explosions, more attention ought to be paid to the health of the men while at work than was done at present. The principle of Government inspection would be advantageous in this respect as well as others; but he had found many colliery agents grossly ignorant, and a better system of instruction than we had at present was seriously required. The continent afforded us an example, where they had good schools, with limited practice, while we had extensive practice and no schools.

Mr. ROBERT STEPHENSON, M.P., said, if it could be shown that an extended system of Government inspection would ameliorate the condition of the miner, and prevent that awful loss of life of which we too frequently hear, for humanity's sake they must all support its extension. He, however, did not think that any number of inspectors could avert the evil; for he had known a mine perfectly healthy in the evening, which in the morning, from a change in the atmosphere, and the exhalation of carburetted hydrogen, was perfectly dangerous; no Government Inspector could be of the slightest service in such a case. There could be no objection to inspection, as far as seeing that all known scientific means were adopted, and every precaution used; but although he regretted to say there were some cases of great carelessness and neglect, the majority of owners and viewers were otherwise. Few would knowingly risk the lives of 50 or 100 men, and the destruction of their own property, when a little caution, exertion, and trifling expense would guard against it. What we wanted was a system of education, which would prepare young men as colliery viewers, who would have a scientific knowledge of the natural operations going on in a coal mine, and when danger existed be prepared to guard against it. He was himself a coalowner, and he took care to appoint as his working agents only such men as he found competent, and whom he could depend upon for care and watchfulness. He gave Mr. MACKWORTH much credit for the general correctness of his remarks, and the close attention he had evidently paid to the subject. There were, however, some points in which he differed with him. It was impossible that any formula could be laid down as to what quantity of air was necessary for a mine having any certain number of men at work, as circumstances so continually differed in all. He considered it a dangerous precedent, therefore, to lay down any rule, such as 100 cubic feet per man per minute.

Here Mr. MACKWORTH said, he intended that, as a minimum, every man should be supplied with 100 cubic feet of *vital energy*, which, as we understood it (though not quite clearly defined), meant that, in whatever state a mine might be, sufficient atmospheric air must be introduced, as to give every man 100 cubic feet of a healthy breathing medium per minute, which in some mines might require only 100, in others 500 or more cubic feet per man per minute.

Mr. STEPHENSON resumed—even then he could not agree to it, he deprecated a dependence of any fixed rules, where conditions were so continually changing; every manager of a colliery should pay constant attention, take every advantage of circumstances, and the best results would follow. He had also another objection to what Mr. MACKWORTH called "natural ventilation;" it was a new term to him, and he could

scarcely comprehend it; in a colliery left to this kind of ventilation he had found the current would run sometimes one way, sometimes another.

Mr. MACKWORTH explained—he had stated that at this season, when the atmosphere, and consequently the downcast shaft, were at a low temperature, say 40°, while that of the bottom of the mine, and the upcast, would be perhaps 65°, particularly if the opening of the latter was of greater elevation than the former, a current would always run in the right direction, which he termed "natural ventilation."

Mr. STEPHENSON could not, however, agree that such a current could for one moment be depended on, and that it would be productive of the greatest danger; the furnace was the best method of securing a sufficient and regular current, under all the circumstances which had ever come under his knowledge; and although danger was attributed to it from its tendency to fire the gases passing over it, it rarely happened that explosions occurred from it, and then only in new mines, were the area was circumscribed.

During this discussion the necessity for the continual employment of the barometer, thermometer, anemometer, safety-lamp, and other instruments, was strongly urged, a system of national scientific mining education advocated; and, from the marked attention paid by a well attended meeting, and the emphatic approbation shown at any important expression of individual opinion, it appears certain that this important subject is exciting more attention among engineers generally than has hitherto been the case; which we earnestly hope, and sincerely believe, will be productive of the happiest results.

VENTILATION OF MINES, AND SAFETY-LAMPS.

At the monthly meeting of the members of the Northern Institute of Mining Engineers, held at Newcastle-upon-Tyne, on Friday, the continuation of an elaborate paper on the Comparative Merits of the Furnace and Steam-jets in the Ventilation of Mines, was read by Mr. Nicholas Wood, the president of the Institute. This paper, together with others by Mr. T. J. Taylor, Mr. Elliott, and Mr. Armstrong, describing the results of experiments made by those gentlemen, illustrative of the same question, were ordered to be printed and circulated among the members; and it was arranged that the general subject should be discussed at the next meeting of the Institute, with the view of submitting the whole to a Parliamentary Committee to be appointed for inquiry into the cause of accidents in mines. The same subject has been under the consideration of the Institution of Civil Engineers, in London, who are at present engaged in pursuing the investigation.

At the same meeting of the Northern Institute, Dr. Glover exhibited a new safety-lamp, the joint invention of himself and Mr. Cail, of Newcastle, and appropriately designated the "Newcastle safety-lamp," the properties of which, and its advantages over other lamps, he described at considerable length. He showed that, as compared with the Davy lamp, which is the one in general use in the northern coal mines, the "Newcastle" gave a greatly superior light; that the deficient light of the Davy lamp was itself a source of danger, by causing candles to be burnt where lamps ought to be used, and also by the men removing the gauze to obtain more light. Sir Humphry Davy himself stated that his lamp was insecure in a current, and many others had repeated the same statement, whereas in the present lamp no current can have any effect. The great drawback to glass lamps hitherto has been the danger of the glass cylinder cracking from water falling on it when heated. This danger is obviated in the "Newcastle lamp" by the use of a double glass cylinder. The external glass is ¼ in. thick, and the inner one is a good stout glass, both of them being perfectly annealed. The air is made to enter through gauze at the top of the cylinders, and to pass from above downwards to feed the flame, entering the inner one through gauze. The effect of this arrangement is that the outer cylinder never gets much heated, an advantage over all others of very considerable importance. The double cylinder offers a double chance of safety in case of any accident; and the lamp is besides an excellent test-lamp, soon exhibiting those appearances so well known among miners as indicating the presence of carburetted hydrogen. Another important property of this lamp is that it is self-extinguishing, as the atmospheric mixture reaches the explosive point; and, besides, the gas will not burn in the upper part of it.

Several of the members of the Institute present bore testimony in favour of the lamp, the only objections raised being as to the complicity of its parts, and an admitted prejudice against the use of glass unprotected by an external covering of wire-gauze. The thanks of the meeting were unanimously passed to Dr. Glover and Mr. Cail for the valuable information and scientific skill they had brought to bear upon the subject.

IMPROVEMENTS IN CUTTING OR SHEARING IRON AND OTHER METALS.

A patent under the New Act has been applied for, with complete specification annexed, by Walter Williams, jun., of West Bromwich, in the county of Stafford, ironmaster, for improvements in machinery for cutting or shearing iron and other metals; and, in compliance with the terms of the new law, the protection of letters patent has thereby been obtained for the said invention for six months, which may be afterwards continued for a longer period, if the patent passes the great seal within that time.

This invention refers to an improved combination of machinery for the purpose of cutting or shearing iron and other metals, by the aid of which the patentee states, he will economise power, and thus effect a great improvement in that process. Such being the character of the invention, it is somewhat difficult to give even a general account of the invention without reference to the drawings attached to the specification, but the following will supply some information as to its nature and character:—The machinery consists of a bed-plate, with standards thereon, in which are bearings for various shafts and axles, and on the principal shaft, provided with a driving drum, &c., is a toothed wheel, communicating with other wheelwork; the office of one portion of which is to communicate motion to moving plates of peculiar character, placed beneath the bed-plate; this being the peculiarity of the invention, that such moving plates are provided with slots, taking into which are pins on the lower ends of vertical levers, connected with the cutters or shears, and giving motion thereto—that is to say, that the motion of the moving plate beneath the bed-plate is by means of the slots caused to act on the lower ends of the levers moving the shears or cutters without the intervention of cranks or other mechanical contrivances. Cutting-rollers are placed at the upper part of the machine.

The patantee states in this specification, that he claims the use of the plate with slots before-mentioned, and the machinery required to be used in combination with it, likewise described and set forth.

IMPROVED RAILWAY SIGNAL.

To all who have watched the progress of our railway system, and investigated the causes of the numerous collisions (many of them of an awfully fatal character) which have taken place, it is a well-known fact that almost invariably they have occurred from a fast train running into a slower one, of his proximity to which the driver was not aware, or into stationary waggons, carriages, or other obstacles, which from oversight or very reprehensible neglect, had been left where they ought not to have been. The former might certainly be well nigh entirely avoided, by placing signals at certain distances, besides those at the stations, of such character that the driver of a train can, from their indication, immediately tell whether the road is clear, or whether another train is but a short distance from him, and thus enable him to keep up or slacken his speed accordingly, but nothing of the kind has, we believe, ever yet been in general operation.

Such a signal, patented by Messrs. Cunningham and Carter, we described in the *Mining Journal* of 20th Sept. 1845; and we have recently had the opportunity of inspecting, at the Waterloo-bridge Station of the London and South-Western Railway, another, the invention of, and patented by, Major Archer, intended for the same cautionary purposes, but constructed on a different principle. In the plan under notice, the medium of resistance for regulating the descent of the signal is the atmospheric air—the apparatus consisting of the usual signal lamp and post, with the necessary connecting rods, attached by chains to the acting apparatus on the railway. This consists of a cylindrical bellows—the upper disc of which is a fixture, the bottom one rising and falling as may be required. The movement of this lower disc is acted on by a lever on a shaft, on the extreme end of which is a wooden wheel, about 2 ft. in diameter, to be acted on by a passing train. On this shaft is also a cam of such conformation that, as the wheel is turned more or less round, the signal shown is either white, green, or red—representing safe, danger, and great danger.

The locomotive engine is furnished with an incline plane, which can be set at any angle with the greatest facility by the driver. As this passes over the wooden wheel of the signal apparatus, it raises the lower disc of the bellows (the air escaping by a valve in the upper disc opening upwards) to a sufficient height to show the signal required. Here it would, of course, remain was air not admitted, which is effected by a small slide valve in the upper disc, by the contracting or enlarging the orifice of which the descent of the signal to one, five, or any number of minutes, can be secured with the utmost certainty and regularity. The whole apparatus is simple, efficient, moderate in first cost, and not likely to get out of repair; and we have no doubt, if brought into general use, will tend in a great degree to put a stop to those descriptions of accidents we have here alluded to.

THE LONDON JOINT-STOCK BANKS.

The half-yearly meetings of the several joint-stock banks in London being now completed, the subjoined table has been made up, showing their relative capitals and extent of business, as well as the respective periods at which they were opened, and the number of branches belonging to each establishment. In the case of the Union Bank and the Commercial Bank, the figures given are those which were presented in their annual statements last July; the others are all to the 31st of December:—

LONDON AND WESTMINSTER BANK (established 1834), five branches.—Paid-up capital, 1,000,000*l.*; deposits, &c., 5,381,705*l.*; guarantee fund, 109,164*l.*; dividend last half-year, 3 per cent., and bonus of 8s. per 10*l.* share.

LONDON JOINT-STOCK BANK (established 1836), one branch.—Paid-up capital, 600,000*l.*; deposits, &c., 3,591,506*l.*; guarantee fund, 146,613*l.*; dividend last half-year, 3 per cent., and bonus of 7s. per share.

UNION BANK OF LONDON (established 1839), two branches.—Paid-up capital, 422,900*l.*; deposits, &c., 4,268,438*l.*; guarantee fund, 58,068*l.*; dividend last half-year, 3½ per cent.

LONDON AND COUNTY BANK (established 1839), fifty-eight branches.—Paid-up capital, 360,670*l.*; deposits, &c., 3,281,603*l.*; guarantee fund, 14,325*l.*; dividend last half-year, 3 per cent., and 1 per cent. bonus.

COMMERCIAL BANK (established 1840), one branch.—Paid-up capital, 200,000*l.*; deposits, &c., 964,177*l.*; guarantee fund, 32,012*l.*; dividend last half-year, 3 per cent., and bonus of 8s. per share.

ROYAL BRITISH BANK (established 1849), three branches.—Paid-up capital, 50,000*l.*; deposits, &c., 736,679*l.*; guarantee fund, 7500*l.*; dividend last half-year, 3 per cent.

ARRIVALS OF AUSTRALIAN GOLD.

The *Bloomer*, from Sydney, New South Wales, has arrived this week with 10,700 ozs. of gold, value about 42,800*l.* As so much interest is attached to the arrival of vessels from the Australian ports, with remittances of the precious metal, the following list of the ships which are known to have sailed up to the date of the last advices will be useful:—From Sydney for London, October 21, the *Oriental*, with 7119 ozs., value 28,476*l.*; the *Alert*, from Sydney for London, November 1, with 43,000 ozs., value 172,000*l.*; from Melbourne for London, October 28, the *Chowringhee*, with 63,713 ozs., value 254,852*l.*; ditto, the *Three Bells*, with 77,803 ozs., value 311,212*l.*; ditto, November 15, the *Roxburgh Castle*, with 151,157 ozs., value 604,628*l.*

The following statement of the total amount of the shipments of gold from Sydney, New South Wales to the 8th Sept. last, is furnished by Mr. R. T. Ford, of Sydney:—

Name of ship.	Date of sailing.	No. of ozs.
Cornelia	8th July	5,073
Glenberrie	9th ,,	—
Sapphire	15th ,,	14,868
Deeanie Forn	16th ,,	—
Pelham	18th ,,	27,761
Neptune	30th ,,	17,329
Emperor	16th August	6,380
Duke of Wellington	20th ,,	21,363
Fatima	12th ,,	18,557
Nestor	16th ,,	12,295
Unicorn	22d ,,	527
Roman Emperor	23d ,,	60,572
Steam-ship *Chusan*	31st ,,	575
Agenoria	8th Sept.	204
Total		185,498

Which, added to the previous shipments to 30th June, 1852, amounting to 487,995 ozs., gives a total of 673,493 ozs., which, at the English price of 4*l.* per oz., makes the total value of the shipments to 8th September about 2,693,972*l.*

ON THE GOLD FIELDS OF VICTORIA, OR PORT PHILIP.

BY MR. G. H. WATHEN.

[Communicated to the Geological Society by Mr. P. N. Johnson, F.G.S.]

The "Australian Alps" are a series of distinct mountain ranges, that pass round the south-eastern corner of Australia (nearly parallel to the coast line, and from 50 to 80 miles from the sea), and form a part of the main chain of the continent. This mountain chain, in Victoria, consists of clay-slate, mica slate, and flinty slate, together with granite, in a successional arrangement, forming collectively a recurring series. The strata are nearly, or quite vertical, with a north and south strike, and are intersected by numerous quartz veins, running at an acute angle with the slate. Vast plains of trap, forming high table lands, run up to the base of the mountains, and probably cover their lower slopes. It is in the valleys and gullies of these mountains, and not very far from their junction with the trappean plains, that the rich deposits of gold are found. Gold has been discovered at several points along this zone of mountains; but the richest deposits opened in the colony of Victoria (and, indeed, in the whole continent), are those of Ballarat and Mount Alexander. The former is about 55 miles north-west of Geelong, and the latter about 75 miles north-west of Melbourne. The enormous amount of gold which the latter district has yielded has chiefly been derived from two valleys, with their gullies and ravines. These valleys are known by the names of the streams or "creeks" that run through them. One of these, Forest Creek, takes its rise in the granite forming the central mass of Mount Alexander; the other has its source in the high and broken ranges of slate that environ the mount. Both creeks are tributaries of the River Loddon, on the banks of which, also, gold is found in small quantities. The Ballarat gold-field lies at the junction of the slate with a trappean tract, about seven miles from an extinct volcano, known as Mount Beninyong. The original matrix of the gold seems to be the above-mentioned quartz veins that traverse the slate generally in a north and south direction. The wearing away of the slate rocks and their quartz veins by the action of the weather, and by aqueous agency, have given rise to the auriferous beds of gravel and clay occupying the beds of the ravines and valleys at the present day.

Occasionally the gold is found at or near the surface of the soil, diffused through the gravel; sometimes it lies as much as 30 ft. beneath the surface, embedded in clay, either immediately upon the rough rock surface below, or just above a white clay, known by the miners as "the pipe-clay;" and it may be met with in other localities at every intermediate depth. In some places boulders of quartz, and beds of hard concrete of quartz and slate pebbles occur in the auriferous clays. These different conditions of the auriferous beds depend upon the physical characters of the gullies and the valleys down which the drifted materials have been carried, and upon the varying force of the water-power that at different times, and at different places, has been brought to bear upon the shingle, sand, and mud. Thus, in the creeks the deposits in their channels are richest at points where the stream has been impeded in its course either by frequent sinuosities, or being crossed by a bar of rock; this holds good with the deserted channels of streams also.

When auriferous clays and gravels occur in the dry gullies descending from the higher ranges, the richest deposits are always found in the ancient channel or bed of the gully, often occupying a very narrow area; but when these gullies contract at their junction with the larger valleys, the auriferous clays are often continued up the sides of the enclosing hills, even to their crests, and the distribution of the beds and of the gold is very variable under these circumstances, as though the beds had been here deposited by means of strong, conflicting eddies and currents. It appears that, with regard to Victoria, the gold has been arrested in the small mountain ravines and gullies, and was not washed down to the larger streams. Auriferous sands in river banks, or in alluvial plains of the low lands, are unknown in this colony. The methods of working the gold-bearing alluvia, either at the surface or by pits and "holes," vary, of course, according to the depth to be attained, and the means at the command of the miners. The methods of separating the gold from the gravels and clays are the same as those used elsewhere in New South Wales and California.

[Besides the Ballarat and Mount Alexander gold-fields, "diggings" have been opened at Mount Blackwood, and on the Moorabool River, near Ballarat; on the Plenty and the Yarra Yarra Rivers, north-east of Melbourne; on the Mitta Mitta River and Lake Omeo, in the north-east part of the colony; as well as at several points along the eastern portion of the boundary line between Victoria and New South Wales.]

LIST OF PATENTS COMPLETED UNDER THE NEW LAW.

J. Driver, Keighley, Yorkshire, and J. Wells, Bradford, Yorkshire—Moulding in sand and loam for the casting of iron and other metals.

M. Fitzpatrick, Upper Cleveland-street, Fitzroy-square—Machinery or apparatus to be applied to locomotive engines and carriages for the prevention of accidents, and also in the manufacture and application of indestructible and non re-bounding cushions to be applied to the above and other similar purposes.

T. Dunn, Pendleton, and W. Watts, jun., Miles Plating, near Manchester—Construction of railways.

F. M. Gooch, Bolton-le-Moors—Construction of railway signals, and in machinery or apparatus for working railway signals.

P. Warren, Strathmore-terrace, Shadwell—Material applicable to many purposes for which papier maché and gutta percha have been or may be used.

R. Sandiford, Tottington Lower End, near Bury—Apparatus for block-printing.

T. Taylor, Patent saw-mills, Manchester—Apparatus for measuring water and other fluids, which apparatus is also applicable to the purpose of obtaining motive-power.

W. Williams, Birmingham—Electric telegraphs.

W. Pink, Fareham—Construction of stirrup-bar for saddles.

J. F. M'Connell, Wolverton—Locomotive engines. [—Treating zinc ores.

R. Taylor, jun., Queen-street, Cheapside, and J. A. Phillips, Upper Stamford-street.

C. Dresser, Basinghall-street—Combining materials to be used in substitution of whalebone and other flexible or elastic substances. (A communication).

G. S. Sidney, Willows, Brixton-road—Jugs or vessels for containing liquids.

W. Robertson, Barrhead, Renfrew—Certain machines for spinning and doubling cotton and other fibrous substances.

W. J. Silver, 47, Clark-street, Stepney—Giving motion to capstan and other barrels.

G. Gwynne, Hyde-park-square, and G. F. Wilson, Belmont, Vauxhall—Manufacture of candles, night-lights, and soap.

T. Greenshields, Stoke-works, Worcester—Manufacture of alkali.

DESIGN FOR ARTICLES OF UTILITY REGISTERED.

H. and J. Gardner, 452, Strand, improved fish-tail burner.

THE ELECTRIC LIGHT.—On Thursday evening last, an exhibition of an electric light, produced by an entirely new combination of elements, as compared with anything hitherto effected, took place in Palace-yard, and caused considerable interest among thousands of spectators, with whom were numerous Members of Parliament, who were about attending their legislative duties. There is nothing particular in the light itself—it is simply the "electric light;" but the marvel of the subject is, if the statements put forward be correct, that not only is the light continuous and *costless*, but out of *five* elements placed in the battery one hundred compounds are obtained of great commercial value, and applicable to the manufacture of colours of the greatest possible brilliancy, purity, and permanence. The discoverer is Dr. Jos. J. W. Watson, recently well known in the mining circles as a mineral viewer and geologist; and should the results really be as stated, a complete revolution will be effected in the philosophy of artificial illumination, and undying honour must attach to the inventor's name. We shall probably be able to give more information in our next.

The prospectus has been issued of a company with a respectable board of directors, to be called the Australasian Coal Mining Company. Its proposed capital is 200,000*l.*, in 5*l.* shares, and the mines to be leased are those of the Four-mile Creek Colliery, near Maitland, and another near Hexham, on the Hunter's River. With regard to the supply of labour, arrangements have been made for an importation of Chinese, under the usual articles of indenture, and through the agency of Messrs. Jardine, Matheson, and Co.

ON THE PNEUMATICS OF MINES.

On Tuesday, Feb. 1, a paper on this subject, by Mr. J. Richardson, M. Inst. C.E., was read at the Institution of Civil Engineers. The author, after showing and lamenting the discrepancy existing among the various systems of ventilation, which might be traced to the want of good formulæ for the necessary calculations, strengthened his position by the evidence given in the Reports of the Parliamentary Committees and of that at South Shields, in 1843. He then explained the usual modes of calculation, and demonstrated, that many more points require to be considered then were ordinarily admitted to bear on the question, and that no sound basis of calculation could be formed on any one of the various elements, but that the whole must be carefully considered, after having examined each element in detail.

The chemical constitution and properties of atmospheric air were then considered, its uses in the animal economy, its adulteration by deleterious gases, and the compensating action provided by nature for restoring it to its primitive purity.

The principles of combustion were then defined, and calculations were given for determining the amount of atmospheric air required for supporting it, and animal respiration; and for compensating for the amount of deterioration by perspiration. The several quantities of air practically required in mines for the healthful support of men and horses were carefully shown, with the modes of calculating, allowing for the distance the air must travel.

Then followed the analysis of the deleterious gases existing in mines; the fire-damp, choke-damp, and after-damp—with the quantity of atmospheric air required to dilute these vapours, so as to render them innocuous, or to promote such ample ventilation as to sweep them away from the galleries of the mines.

A clear description was then given of the "Eudiometer," and of the method of using it, to discover the quantity of oxygen, and the per centage of carburetted hydrogen, or other gases, contained in the air of any part of a mine. The solution of chlorine in water determining the quantity of hydro-carbonate, or fire-damp present; that of green sulphate of iron, impregnated with nitrous gas, the relative quantity of oxygen, and that of lime water (or better, caustic potassa, or baryta) the relative admixture of carbonic acid.

The absolute necessity for diluting the fire-damp with, at least, thirty times its volume of atmospheric air, and forcing it out of the mine with rapidity, was insisted on, and examples given of explosions occurring apparently from the most opposite causes; still, however, traceable to the same source—a deficiency of ventilation.

The diagram of Dr. Clanny's clever analysis of fire-damp was then given and reasoned on; and the precautions to be observed on entering a mine after an explosion were detailed at length, as more men were generally killed by the after-damp than by the explosion itself.

The calculations were then given for determining, from the previous data, the quantity of air actually required in mines, taking into consideration the number of men, horses, and lights, the presence of deleterious gases, the increased temperature, the difference of barometric pressure, and the length of the galleries through which the air coursed.

The results were shown in tabular forms, and simple rules were deduced for determining the quantity required under all circumstances of varying per centage of deleterious gases, &c.

The amount given by these rules might appear large, but when compared with the tabular statement of the quantity of air actually passing through 24 of the principal mines in Great Britain, it was shown to be below that allowed for the best, and even those had not been entirely free from accidental explosions.

The results of the investigation appeared to demonstrate the possibility of determining the quantity of air required in mines, under all circumstances, basing the calculations on the premises demonstrated in the introduction, and using the simple rules, whose results corresponded, in a remarkable degree, with the best practical observations; and a hope was expressed that the great simplicity and applicability of the rules would recommend them to notice and experiment, until time, by establishing their trustworthiness, should induce their general adoption.

Tuesday evening last was entirely devoted to the discussion of Mr. J. Richardson's paper: it was commenced by alluding to the very different condition of the ventilation in the mines and collieries of the various districts of Great Britain. Some having humane proprietors, educated engineers and intelligent overlookers, by whom all scientific and practical knowledge was brought to bear on the question; whilst others were worked by men who cared little for anything beyond mere gain, and went on without other supervision than that of the most ignorant overmen, by whom matters were allowed to fall into a bad state, the whole being entirely dependent on "natural ventilation," by which was meant merely sinking two pits, one of which was intended for the down-cast and the other for the up-cast, the motion of the air being determined only by the difference of the temperature of the two shafts. If these two states were compared, it would be admitted that some degree either of Government or other inspection was necessary.

The quantities of atmospheric air necessary for the healthful condition of mines, under various circumstances, were then given, as being in round numbers 100 cubic feet per man per minute, for mines free from deleterious gases, up to as much as 500 or even 600 cubic feet in very fiery and bad mines.

The various means of forcing air into and exhausting air from mines were then explained, more particularly touching on the "water-blast" used in the Hartz Mountains and in Belgium, by which it appeared long galleries were very rapidly cleared, even of powder smoke. Gurney's steam-jet and Struvé's aerometer, Combe's curved arm fan, the pneumatic screw, and the ordinary exhausting or rarefying furnace were compared; and it was contended that, though the furnace was the simplest system, there were occasions when, from its action not being susceptible of acceleration, it would be ineffective in rapidly clearing a mine after an explosion; whereas, by increasing the velocity of Struvé's aerometer, its active power would be rendered so much more effective that the mine would be immediately cleared, even in spite of the destruction of the brattice, or of the gallery doors. The accident at the Middle Duffryn Colliery, caused by the explosion of the gas at the exhausting furnace, was explained to have arisen, most probably, from the introduction of such a large quantity of atmospheric air as brought the air in the mine to its most explosive condition. This most frequently occurred in new mines, and where generally every attention was paid to copious ventilation.

Constant attention to the indications of the barometer was enforced, as the best mode of avoiding accident; and it was shown that however well anemometers might be constructed, it was necessary to make an allowance for friction, and to have them well compared and regulated, before trusting to them. The existence of a condition of "natural ventilation" was strongly contested. It was urged that such a state was not compatible with any security, as the difference between the columns must depend on the deterioration of the air in the mine, by the breath and the animal exudations of the men, and other causes, the current must become sluggish at night, when the mine was not working, the course of the ventilation might suddenly change, with the direction of the wind, and all the ventilating arrangements would be rendered of non-effect. It was contended that Government inspection, to be really useful, should be applied to giving information to the proprietors and overlookers, and observing whether the best known means were adopted for the prevention of accidents, and for saving life when they did occur. All the rest might be safely left to those men who, having embarked large capitals in the undertakings, would embrace the best methods of making their speculations profitable, even supposing them not animated by any higher object.

Attention was directed to the Institution of Mining Engineers, recently established at Newcastle-on-Tyne, under the presidency of Mr. Nicholas Wood, M. Inst. C.E.; and it was hoped that by its means knowledge might be more extensively spread among that valuable class, the overmen of the North, whose practical skill only required to be allied to a little more scientific knowledge to render them a most useful class, whence to draw the overmen for other districts, where there was still a lamentable deficiency of knowledge and practical skill.

THE MIDLAND COAL DISTRICT.—A "Coalowner," dating from "near Nottingham," objects to some of the statements made by a correspondent of the *Times* on the trade of this coal district. He says, "There has been no such advance in the price as 80 per cent.; about 25 per cent. is nearer the truth." There are no official tables to refer to, as in the corn trade, from which to take the present average price of coal, and compare it with past periods, and, therefore, any calculation made on the subject must necessarily be matter of opinion; but that the advance is much nearer 80 per cent. than 25 we shall have little difficulty in showing. Let us first take the low descriptions. At one colliery we visited, slack, which a few months ago could with difficulty be sold at 2s. a ton, is now purchased with avidity at 5s. 6d., in very large quantities. At this and other collieries, soft coal, which was recently to be had at 7s. or 7s. 3d. per ton, is now at 10s. and 10s. 6d. At Butterley the price was 9s., now it is 15s. These instances, be it borne in mind, occur in this immediate district, while in Warwickshire and Staffordshire the advance is still greater. At Great-bridge, near Birmingham, prices, which some time since were so low as to threaten competition here, range between 14s. and 17s. a ton; to that town, and others in the iron district, considerable quantities of our coal are now being sent, and there command full prices. Nothing is more common just now than for boats from long distances to return from some of our collieries without being able to get supplies; and, besides the scanty yield, the railways are not provided with trucks sufficient to carry all that are required in distant markets. Hence, further off, the rise of value in many quarters must be considerably greater than in the midland counties. Under these circumstances, the advance can scarcely be estimated throughout all markets supplied from the midland coal-field at less than 80 per cent., while 25 per cent. scarcely represents the increased value at the pit's mouth in collieries situated inconveniently for communication by canal and railway. "That the mode of carrying on the works—such as putting in metal, using bricks instead of wood—is entirely regulated by circumstances, such as the depth of shaft, the peculiar stratification, and other causes, which vary within a few hundred yards of each other," we do not contradict; but this we affirm, and to it we attach considerable importance, that in sinking shafts, when new pits are found, water may be kept out, and ventilation improved, by the liberal use of bricks, combined with casing the wet measures of shafts with iron tubing.

A SILVER MINE IN INVERNESSHIRE.—There is a tradition in this part of the country, handed down from sire to son, that there lived in Easter Moy, on the Seaforth property, some two or three generations back, a blacksmith of the name of Ferguson, who was never known to run short of a supply of silver. It is said that he found the metal in abundance below and above the rocks of Moy, and, to escape detection, always went in search of it in the dusk, or through the night time, on account of which some of his more superstitious neighbours had him convicted of holding communion with the banshee. On one occasion, some of his newly-coined shillings fell into the hands of his superior, Mackenzie, of Fairburn, at a market held in Contin. (this part of the Seaforth property was possessed by the lairds of Fairburn till the late Lord Seaforth's time), who soon traced out the maker, and he, it is said, threathened him with the simple but sure punishment of hanging, if he should see any more of his new shillings in circulation. In these good old times it was customary to hang at the bidding of the laird, and to escape this Ferguson discontinued his diggings. Subsequent to the time in which Ferguson lived a number of his coins were found in a pit at the foot of the rocks by people employed in planting. It was supposed that they were hidden by him when he was threatened by the laird. Immediately below these rocks, in the pools of the Canon, are found pearls of considerable value, which are of two kinds, brown and white. These pools are visited annually by a blind man and his better half, whose occupation is that of fishing for pearls, by which means they manage to earn a livelihood. This blind pearl-fisher says that, without doubt, there is a silver and a gold mine below these pearl beds; and, strange to relate, he will know the shell that contains the pearl without opening it, which saves him the trouble of opening all the shells he takes out of the river; this so far corroborates the tradition regarding Ferguson's silver mine. There is no doubt, if a practical geologist was to explore these rocks, but silver would be found in sufficient quantities to remunerate more than the labour, when Ferguson in his night rambles managed to find of it, without great labour, as much as kept him in a comfortable way. It is also said that Ferguson was employed by the laird to dig a sufficient quantity of the metal, which was at that time converted into plate for the family of Fairburn. It is worthy of remark that Ferguson's great grandson is a mechanical genius, living in this vicinity.—*Inverness Advertiser.*

NEW GRANADA COMPANY.

A meeting of shareholders was held on Tuesday, at the offices, Adam's-court, Old Broad-street, CHARLES JOHNSTON, Esq., in the chair.

The SECRETARY (G. E. Breffit, Esq.) having read the advertisement convening the meeting,

The CHAIRMAN observed that this was an extraordinary meeting, held to confirm a resolution passed at the meeting of shareholders on Tuesday, 25th January, for the purpose of ratifying the provisional contracts entered into by the agents of the company in New Granada, for the purchase of the Frontino, Juan Criollo, and Bolivia Mines, and other property referred to in such contracts, and authorising the directors to adopt that course with reference thereto they might deem expedient. Such was merely the ordinary business of the day; but should any proprietors be now present who were not at the previous meeting, he would be very happy to give them any information in his power. It was satisfactory to state, that one remittance to the value of about 700*l.* or 800*l.* was already lodged in the Bank of England, and others were expected to follow monthly of a higher average. He took the opportunity of drawing attention to the reports in the papers relative to the formation of a canal at the Isthmus of Darien, *a bona fide* undertaking, promoted by gentlemen of high standing, and which would materially advance the interests of the New Granada Company. Nothing more remained for him than to move a resolution to ratify the proceedings of the meeting of the 25th inst.

This resolution was immediately seconded, and carried unanimously.

Mr. J. MASTERMAN, jun., observed that despatches had been received since the last meeting, confirmatory of previous accounts, and giving fresh testimony that the investment on the part of the company would prove beneficial; indeed, the tone of the communication was altogether satisfactory, showing that the agents were very sanguine: while they expected competition, they would far from regret it; indeed, such was rather to be invited, as the prosperity of the country would be advanced by fresh enterprise and additional capital, while the New Granada Company would always have the preference, independent of any advantage that might arise from being first in the field. It was to be hoped that the undertaking would be carried out in a judicious manner, and that a temporary success would not be allowed to lead them from the path of precaution.

A vote of thanks having been given to the chairman, and suitably acknowledged by him, the meeting separated.

PEMBROKE AND EAST CRINNIS MINING COMPANY.

At the general meeting of shareholders (the particulars of which appeared in our last Journal), the following report from Capt. S. Richards was read, but owing to a pressure on our space, was then omitted:—

Jan. 13.—In reporting to you on these mines, it will, of course, be unnecessary for me to enter into particulars as to the situation, extent of the sett, number, and names of the different shafts, &c., as from your plans, and other sources of information, you are, no doubt, fully informed on these heads. I shall, therefore, in a great measure, confine my remarks to the principal operations now being carried on, and the objects in view. I find in the eastern part of Pembroke Mine that the former company worked to a very limited extent east of Carlyon's shaft—only one level (the 80) being driven east below the 58 fm. level. The sett in this direction is very extensive, and the lode as far as I could see, although not quite so large as in other parts, is very strong, healthy, and promising for making abundance of mineral in depth. Garden shaft in the 80 fm., east of Carlyon's, has lately been sunk from the 48 to 58 fathom level on the course of the lode, which, although not rich, is a most promising looking one indeed, with some good stones of ore. In the 58 a level has been extended a few fathoms east on the course of the lode, which is about 2½ ft. wide, and has turned out some very good work for copper. The 48 fm. level, in course of driving also, is extended 50 fms. east; the lode varying from 2 to 8 ft. wide, with small quantities of ore the greater of the distance; for the last 5 fms. there has been a rich branch on the north wall, worth about ½ a ton of rich ore per fathom; this end bids fair for shortly opening a very productive lode.

I consider such prospects in so extensive a piece of ground as one of the important features of your concern. I did not see the lode below the 58, as the water was not out from the bottom, and other parts were full of stuff; but whatever its appearances may be where the former company left off at deeper levels, near Carlyon's shaft, these eastern ends fully warrant the extention of one or more of them (the deep levels) as soon as possible. In the eastern part of East Crinnis I find there is also a very large piece of ground nearly unexplored, through which three levels are in course of driving from Smith's shaft—viz., the 90, 70, and 50 fm. levels. The 90 is driven about 75 fms., the greater part of this driving is on the main or East Crinnis lode, but about 12 fms. behind the end, a lode in the direction of south-west and north-east intersected it (supposed to be Thomas's lode), and on which the level is now driving, it is full 4 ft. wide, and very much improved in the last 2 fms., now worth from 3 to 4 tons of ore per fm., and of a very promising appearance; about 35 fms. west of this end a cross-cut is being put out south, to intersect and prove this lode further west. The 70 is driven east of Smith's shaft about 80 fms.; the lode in places is large, and will leave a profit in stoping away, which I was informed is about to be set to tributers.

The 50 fm. level is driven east about 90 fms. The lode can be seen only in places in this level, but near the present end it is about 4 ft. wide, composed of spar, cupel, prian, mundic, &c.—a kindly looking lode. I understand the sett extends 300 fms. east of this end; and in all this distance a very small amount of work has been done, which was at Wheal Unity. Wheal Unity shaft is about 130 fms. before the 50 end just referred to. I was informed it was sunk 40 fms. from the surface, and a level at this depth driven many fathoms west. It is intended to communicate the 50 with Wheal Unity workings; and it is expected that there are only about 50 fathoms more to drive, and a few fathoms to rise to accomplish this object. I was told that a very rich lode was opened in the 40 fm. level, in Wheal Unity, just before the mines were stopped, and which I have no reason to doubt.

This circumstance, as well as for proving the intermediate ground, is a sufficient reason for pushing forward the 70 and 90 ends with all speed. In the 60 fm. level, at Smith's shaft, a cross-cut is being driven south, to intersect Thomas's and other lodes in that direction. At Truscott's shaft, in the 90 fm. level, a cross-cut is being driven south, also with the same object, both of which are desirable. The 100 fm. level is driven west on Phillips's lode 100 fathoms; the lode, as far as can be seen, is poor; the end is extended to within a few fathoms of the ore ground gone down in the bottom of the 90; and judging from what I was told, and the great quantity of ground taken away from the back and bottom of this level, towards Reid's shaft, I have no doubt large quantities of ore were returned from there,—I could not see the lode below the 100 level, as the water was not out at the time. At Reed's shaft, in the 90 fm. level, about 100 fms. west of the shaft, a cross-cut is in course of driving south from Phillips's lode, in search of south lodes. The 80 fm. level is extended about 100 fms. west of the shaft; the lode now standing, generally speaking, is small, and rather poor. In the 70, about 150 fathoms west of the shaft, a cross-cut is put out north, and intersects Phillips's north part, which is driven on here about 3 fms., averaging 1½ ft. wide: in the west end it appears to be improving in size and quality, and producing good stones of ore. This lode is opened on, west from Reed's, about 40 fms.; in the greater part of the distance it is large, and orey in places; about 4 fms. behind the present end it is worth about 2 tons of good quality ore per fathom. I understand that this shaft (Reed's) is down to the 112 fm. level, and that the principal portion of the returns were obtained from there for a considerable time before the mines were abandoned; but there being no communication below the 90 with other parts of the mine, this part is, consequently, full of water to this (90) level. There are other levels and cross-cuts in operation, but I do not consider I have any need to refer to them. Evidently, the principal objects at present you have to lay open, are—1st, the east part of Pembroke, lengthwise and in depth; 2d, the east part of East Crinnis, similarly on both the main and Phillips's lode; 3d, the proving of Thomas's, and, probably, other south lodes; 4th, the proving of Phillips's lode at Reed's, under the last workings, and westward; and the junction of this lode with the Pembroke and intermediate lodes. For the first three, the operations in hand are more particularly designed to lay open, and will no doubt effect the purpose; the fourth object seems rather more remote.

It is true the 100 fm. level, from Truscott's shaft, may in no very long time be communicated with this part, but there will be still 12 fms. of water in, and it must be a great object with you to get at productive ground for returns as soon as you can, consistently with the best mode of working. I have carefully considered the best plan for getting to the bottom of Reed's, and I would suggest that a line of flat-rods be laid down from one of the engines to this shaft, to pump the water from the bottom to the deepest level communicated with Truscott's shaft, through which the water would flow to this shaft, and by which means the 112 fm. level may be communicated in half the time it otherwise would, and so much the earlier in a position to sink under this level.

I have referred to several cross-cuts being in course of driving south from East Crinnis. Driving north from Pembroke (all other circumstances the same) would be equally desirable, and would, in like manner, prove the lode or lodes between the two mines; and it occurred to my mind, if practicable (I refer to pumping-power, &c.), that a cross-cut put out from the bottom of Taylor's (130) northward would be a very desirable object, which cross-cut would not intersect Thomas's lode, &c., but should be extended to Phillips's lode, which would thereby prove it near 20 fms. below the present bottom, and in the meantime, the sinking of Reed's shaft, &c., and the extension of levels, as far as practicable, could be effected by the appliance before referred to. As to the junction of Phillips's lode with others to the south of it, it is a most important and desirable object indeed to see, but this will take place at a much deeper point, and for the present I do no more than refer to it. Having now referred to the principal points in operation, I have to remark that, although the old workings on these mines are poor, still it is no more than might be expected—or rather, it was unreasonable to expect to fork out the water, and have courses of ore to work on; nevertheless, looking at the comparatively shallow depth the mines are opened, and the extraordinary results from the lodes in former times, the very extensive pieces of ground partially or almost wholly untried in the eastern part of both mines (Pembroke more particularly), and looking at the character of the lodes where you are exploring, I should not be surprised any day to hear of a good discovery; and I do not see, with patience and necessary outlay in sinking and driving, why these mines should not become very profitable, if not as profitable as ever; and further, in my opinion, the object in view in this concern fully warrants the outlay of the necessary capital to develope them. In conclusion, I must express my thanks to Capt. Lyle and the other agents, who showed me every kindness, and most willingly gave me all the information I required.—S. RICHARDS.

EAST BIRCH TOR TIN MINING COMPANY.—This company is formed for working one of the richest mineral deposits in the Dartmoor district, and which was recently giving up by a former company, which became embarrassed, and was obliged to dissolve. The sett is extensive, and the lodes are a direct and unbroken continuation of the old Vitifer Mines, which returned a profit in a short period of upwards of 50,000*l.* Extensive excavations, evidently the operations of the ancient tinners, may be traced for nearly a mile, in places 90 ft. deep by 120 ft. broad, and from the reports of experienced agents, supported by the general opinion of the miners of the county, there can be no doubt but this mine, which is situate in the parishes of North Lovey and Manaton, will pay handsome dividends on the capital invested. The necessary plant and machinery is on the mine, consisting of engine, wheel, and rods, pumps, buddles, &c.: and the requisite buildings, counting-house, smith's shop, timber-house, &c., are erected, requiring only a small outlay for repairs. There is ample water-power for working the mine to any depth, superseding the heavy cost for steam, and altogether 12,000*l.* have been expended on the mine. The adit level, 11 fms. from the surface in the valley, is the only one yet opened, and it is recommended to sink another shaft 30 fms., and drive east and west on the adit, when larger returns are expected, sufficient for the supply, at least, of 40 stamps heads. The mineral tenant is one mile east and west on the course of the lodes, and half a mile wide, situate partially in a valley at the foot of Hookner Tor, and possessing many natural advantages, which will greatly facilitate the necessary operations. The mine is to be conducted on the Cost-book System, divided into 2500 shares, of which 1000 are offered to the public at 3*l.* per share; the remaining 1500 being retained by the proprietors for their interest and previous outlay.

CALLS MADE DURING JANUARY, 1853.

	Per share.	Amount.
Pembroke and East Crinnis	£0 5 0	£2560 0 0
West Wheal Alfred	0 10 0	2500 0 0
Kilbricken	0 10 0	1650 0 0
South Russell	0 7 6	1500 0 0
Charlestown United	0 3 0	1350 0 0
Peru Mines	0 3 0	1344 0 0
North Frances	0 10 0	1250 0 0
East Wheal George	0 10 0	1024 0 0
East Wheal Margaret	1 0 0	1024 0 0
South Carn Brea	0 10 0	1000 0 0
Keswick	1 0 0	873 0 0
Wheal Williams	0 4 0	800 0 0
Wheal Uny	0 15 0	768 0 0
Wheal Gill	0 10 0	768 0 0
East Wheal Basset	3 0 0	768 0 0
Wheal Franco	1 0 0	764 0 0
Hennock	0 10 0	750 0 0
Tramnack and Bosence	0 13 11	712 10 0
Wheal Ennis	0 13 0	709 18 0
Wheal Trefusis	1 5 0	640 0 0
Pen-y-Gelli	1 0 0	640 0 0
Bodcall	0 2 6	625 0 0
Christow	0 10 0	624 0 0
Devon and Courtenay	0 3 0	586 1 0
West Alfred Consols	0 11 1	567 9 0
Wheal Speedwell	0 10 10	554 13 4
Trevelyan	0 5 0	512 0 0
Wheal Crebor	0 10 0	512 0 0
Bell and Lanarth	1 0 0	508 0 0
Wheal Neptune	0 9 4	477 17 4
Wheal Chiverton	0 9 1	465 3 0
Tregardock	0 15 0	450 0 0
Okel Tor	0 4 0	409 12 0
Wheal Robert	0 2 0	400 0 0
Rosewarne	1 10 0	384 0 0
North Buller	0 7 6	384 0 0
Churchstoke	0 7 6	384 0 0
Wheal Kitty (Uny Lelant)	1 8 6	364 16 0
Blaen Caylen	0 4 0	360 0 0
Esgair Llee	0 5 0	320 0 0
Ritton Castle	0 1 6	300 0 0
St. Michael Penkevil	0 10 0	256 0 0
Devon Consols West	0 2 6	256 0 0
Lydford Consols	0 1 0	252 16 0
Exmoor Eliza	0 4 0	204 6 0
Butterdon	0 5 0	203 0 0
Wheal Sarah	0 0 6	102 8 0
Phœnix Consols	0 0 6	102 8 0
South-East White Grit	0 1 0	60 0 0
West Allt-y-Crib	0 1 0	50 0 0
Total		£34,070 17 8

Besides the following, which have only been intimated to us during the month:—

West Sharp Tor	£5 0 0	£1280 0 0
Caradon Vale	0 16 6	1267 4 0
East White Grit	0 7 6	375 0 0
East Wheal Agar	1 10 0	—
Weston	0 2 6	384 0 0
Bronfloyd	0 1 0	200 0 0
Wheal Ludcott	0 0 6	150 0 6
Norbury	0 0 6	100 0 0
Total		£3756 4 0

THE DINAS GREAT COPPER MINE is situate at Penmorva, in the county of Carnarvon, about nine miles from Port Madoc, where the ore can be shipped at from 6*s.* to 7*s.* per ton. This property is in the heart of the richest mineral district in Wales, bounded by the well-known Blaen-y-Pennant and Gilvach. The sett covers above 500 acres of land, the lodes bearing south-east and north-west, mostly from 7 to 10 fms. in width, underlying north, yielding excellent copper ore, from 20 to 25 per cent. of pure metal, and the ground (clay-slate) of so favourable a character that the levels can be driven at 6*l.* and 7*l.* per fm. Being on a considerable eminence, with ample water-power for every purpose, level under level can be driven into the side of the mountain, and no machinery for pumping purposes will be necessary, while speedy returns of ore may be confidently relied on. The stratum is very kindly—a clay-slate, intermixed with abundance of spar, which in this locality never fails to make large deposits of copper ore in depth. The sett is held under lease for 24 years, at the reduced royalty of 1-12th. All the mines around it are working spiritedly, and realising considerable profits, and an outlay of adequate capital alone is required to make the Dinas Great Copper Mine stand on an equal footing. That desirable object is now nearly attained; a spirited company has been formed with 3000 shares, of 3*l.* each, and 10*s.* deposit is an earnest that the works will at once be extended in the most judicious manner. Twelve gentlemen, acting as a committee of management, have control over the funds, many of whom are well known for their attention to mining matters in general, and conversant in all the details connected therewith. Regular accounts and reports will from time to time be laid before the proprietary, not only at the offices of the company, in King William-street, but also in the columns of the *Mining Journal*. Under such management and control, and considering the size of the lodes, the richness of the produce, the easy charge of transit, and expense of driving levels free of water charge, we anticipate the best results by vigorously working the high ground in such an economical manner, and consider the capital quite ample for every purpose.

THE NEW MINT OF AUSTRALIA.—The first appointments in connection with the proposed branch establishment of a mint in Australia have fallen upon Messrs. Welch and Drury, senior clerks of the Census establishment, who are nominated as accountants on probationary duties at the Mint. It is understood that the assay masters will be selected from the Bank of England, and that the mechanical arrangements in the forming of a new mint establishment are in progress.

THE RIVER PLATE—MINERAL WEALTH.—A letter from Monte Video, 15th Dec. says:—"The miner will likewise be enabled to exercise his art here. Rich mines of various metals exist; of many there are indubitable symtoms, and of others some of the produce has already been extracted. Of silver principally there appears to be an abundance, which will probably exceed all the calculations which can be formed; and if the gold is in smaller quantity, it cannot be doubted that it will amply compensate the labour of extracting it. These mines however, have not as yet been properly explored. Various causes have contributed to this; but above all the scarcity of labour and the riches which the soil presents at its surface. Thus, then, the inhabitants of the Uruquay have not hitherto felt the necessity of searching for hidden riches. The produce of the surface, very far from being exhausted, is still in a great measure lost through there being no one to profit by it; and, consequently, search is not made in the centre of the earth for that the want of which is not felt. The existence of these mines is more than ascertained; and, from what is already known of their richness, it may be with certainty inferred that the metallic veins are not very deep, and that the extraction of the ore does not present obstacles to overcome which will not give ample remuneration. Their explorations will, at all events, be lucrative, and may well tempt industrious spirits."

HOLLOWAY'S PILLS, THE MOST UNPRECEDENTED MEDICINE FOR THE CURE OF BILE AND DISORDERED STOMACHS.—Extract of a letter from Mr. D. E. Evans, commercial traveller, Chester, dated Sept. 7th, 1852:—"To Professor Holloway.—Sir,—For a considerable period I suffered dreadfully from bile, indigestion, and a disordered stomach. In the hopes of obtaining relief, I took a great variety of medicines, but all proved of no avail. I was, however, recommended by Mr. Hughes, of Harlech, to try your pills, and it is with pleasure that I have to inform you that they soon restored my appetite, and I now enjoy the very best of health. (Signed) D. E. Evans."—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand. 46

CAST-STEEL BORERS, suitable for BORING EVERY KIND OF ROCK.—Apply to J. T. Tregellas, 80, Lemon-street, Truro.

N.B. Correspondents from a distance should be particular in describing the nature of the rock for which the borers are intended. When the mines are situated within 50 miles of Truro, the advertiser instructs the smiths in person. 47

THE NEW STEAM STAMPS, FOR CRUSHING GOLD QUARTZ AND METALLIC ORES—(BAGGS'S PATENT).

These powerful MACHINES are now TO BE HAD at a SHORT NOTICE, and of any number of horse-power, from four to twenty.—All communications to be addressed to Mr. ISHAM BAGGS, at the office of the *Mining Journal*, 26, Fleet-street.

The following Testimonial of the power and efficacy of these engines is from the manager of one of the smelting establishments in South Wales, where steam stamps, of moderate power, under this patent, have been for some time in operation:—

TO ISHAM BAGGS, ESQ., LONDON.

DEAR SIR,—In reply to your letter of inquiry about the action of your Patent Stamping Machine, I beg to say, that I have now had it fully at work for two months; the quantity of coarse metal it will crush with ease is about 20 tons in 10 hours—about two-thirds is crushed fine, the remainder would require to be stamped a second time, to reduce it to the same fineness. The steam used is very little, and the crushing force very great; large lumps of the metal (which is very hard) are immediately broken down—when I say large, I mean lumps as big as ordinary paving stones. I am now putting up the second machine which you sent me, and have no doubt it will give (as the first has already done) entire satisfaction. I am quite convinced that the principle is excellent, and far superior to any other mode of crushing.

I am, yours, &c., ALFRED TRUEMAN.

Spitty Copper Works, Llanelly, July 23, 1852.

The patent stamps may be used with atmospheric pressure, through the medium of a water-wheel or other prime mover. The application is extremely simple, very powerful, and where a motive-force is ready at hand, the machines cost less than when steam is employed. 48

TO GOLD COMPANIES, AND THE MINING WORLD GENERALLY.—THE NEW STEAM STAMPS.—NOTICE.—One of these powerful ENGINES HAS JUST BEEN ERECTED, and is NOW SET TO WORK, at the ORE FLOORS and REDUCTION WORKS of Messrs. JOHNSON and MATTHEY, SUFFERANCE WHARF, MILLWALL, POPLAR, where it may be seen in operation daily, and its powers subjected to any required test. These stamps, after the most careful inspection, have already been adopted by the following companies:—THE ENGLISH AND AUSTRALIAN COPPER COMPANY, THE ANGLO-CALIFORNIAN GOLD MINING COMPANY, THE ALLIANCE GOLD MINING COMPANY, THE ANGLO-AUSTRALIAN GOLD MINING COMPANY, THE MEXICAN AND SOUTH-AMERICAN MINING COMPANY, THE ST. JOHN DEL REY (Gold, Brazil), THE LINARES LEAD MINING ASSOCIATION (Spain). And they are about being adopted by several other companies and private individuals, who have carefully timed the results of their crushing powers, and submitted their capabilities to the most severe tests. In proof of the utility of these engines, it may be observed, that the saving in manual labour which they will effect to one company alone (the St. John del Rey) will amount to many thousand pounds sterling per annum.—For cards to view the engine at Millwall, apply, by letter, to Mr. Isham Baggs, *Mining Journal* office, 26, Fleet-street, London, where any further particulars may be obtained on application. 49

COPPER MINES ON LAKE SUPERIOR.—FOR SALE, the PROPERTY of the LISKOWIT MINING COMPANY, situated on ISLE ROYALE, LAKE SUPERIOR, UNITED STATES. This mine, abounding in the purest copper, has hitherto been insufficiently worked, owing to the want of sufficient capital and proper skill. It offers strong inducements to capitalists interested in the production of this valuable metal.—For further particulars, apply to Mr. J. Y. Clark, 7, Park-terrace, Maize Hill, Greenwich. 50

ELIGIBLE SITE FOR IRONWORKS.—TO BE LET in the county of NORTHUMBERLAND, a MINERAL PROPERTY, consisting of about 2000 acres, containing IRON ORE, COAL, LIME, FREESTONE, and FIRE CLAY. The iron ore has been analysed, and found to yield about 45 per cent. of iron. There are FOUR SEAMS of COAL proved, each about 3 ft. in thickness, of excellent quality. The limestone, freestone, and fire-clay are abundant.

The distance from Warkworth Harbour is about 12 miles, and from the Acklington Station about eight miles; arrangements are being made for a railway to run through the property.—Specimens of the ironstone, with a copy of the analysis, may be seen at Messrs. Druce and Sons, 10, Billiter-square, London; and further particulars may be had on reference to Mr. Benton, at Brenkburn Priory, near Morpeth. 51

TO BE LET IN FLINTSHIRE, a considerable district of COAL LAND, comprising upwards of 1000 acres, most conveniently situated for railway and water carriage. A line of tramroad runs through the property, connecting it with the Chester and Holyhead Railway, and the River Dee; the tramroad is upon easy gradients, and may be extended at a very small outlay, so as to command a large traffic in the transit of bricks, tiles, and other minerals from the adjoining localities.

For further information, apply to Mr. Robert Williams, mine agent, Ty Uchaf, Mold.—Feb. 10, 1853. 52

VALUABLE COAL WORKS.—TO BE LET, ON LEASE, a valuable and extensive COLLIERY, situate within four miles of the city of Bristol, now in full work, consisting of TWO PITS, PUMPING ENGINE, PIT ENGINES, MACHINERY, &c., of the best description, in good working order.—To view the same, apply to Mr. Isaac Britton, bailiff, Soundwell Coal Works, Kingswood, near Bristol 53

CONSOLIDATED COPPER MINES OF COBRE ASSOCIATION.—Notice is hereby given that a DIVIDEND of THREE POUNDS per share, exclusive of income tax, will be PAID to the holders of certificates in this company, at the office of the Association, No. 26, Austinfriars, on and after THURSDAY, the 17th day of February next, between the hours of Eleven and Three o'clock.

The proprietors are requested to leave their certificates at the office for examination three clear days before the day of payment.

By order of the Court of Directors,
26, Austinfriars, Jan. 25, 1853. WM. LECKIE, Secretary. 54

NEW GRANADA COMPANY.—At an EXTRAORDINARY MEETING of Shareholders, held on Tuesday, February 8th, at the Company's office, 6, Adam's-court, Old Broad-street,—

CHARLES JOHNSTON, Esq., in the chair,

The following resolutions were unanimously carried:—

"That this meeting ratify and confirm the resolutions passed at an Extraordinary Meeting of Shareholders, held on Tuesday, the 25th January last, relative to the purchases of the Frontino, Juan Criollo, and Bolivia Mines, and other property connected with the said purchases, and authorise the Directors to take all such steps as they may think advisable to carry the same into effect."

"That the thanks of this Meeting be given to the Chairman and Directors of the Company." By order of the Board,

GEORGE E. BREFFIT, Secretary.

6, Adam's-court, Old Broad-street, Feb. 8, 1853. 55

BRITANNIA GOLD AND COPPER MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders will be HELD on Friday, the 18th day of February inst., at One o'clock in the afternoon precisely, at the offices of the Company, No. 5, Barge-yard Chambers, Bucklersbury, in the City of London, to take into consideration the adoption, or otherwise, of certain proposed amended rules and regulations for the future and better government of the said Company. By order of the Committee of Management,

R. J. BISDEE, Sec. and Purser.

Offices, 5, Barge-yard Chambers, Bucklersbury, Feb. 4, 1853. 56

KENMARE AND WEST OF IRELAND COPPER AND SILVER-LEAD MINING COMPANY.—Notice is hereby given, that the HALF-YEARLY ORDINARY GENERAL MEETING of the above Company will be HOLDEN (*pro formâ*) at their offices, No. 62, Moorgate-street, in the City of London, on Friday, the 10th of February, at One o'clock precisely, and will be adjourned to the following Friday, the 18th of February, at One o'clock precisely, to receive the report of the Directors, and the half-year's accounts; to elect a director in the room of G. T. Braine, Esq., who retires by rotation; and to consider and transact the general affairs of the Company. G. T. Braine, Esq., being eligible for re-election, offers himself accordingly. By order of the Board,

Dated 2d February, 1853. J. REYNOLDS GWATKIN, Sec. 57

NEW POLGOOTH AND WOODCLOZE MINES.—NOTICE.—The SECOND INSTALMENT of TEN SHILLINGS PER SHARE is NOW DUE, and PAYABLE at the offices of the Company, where the certificates are required to be left three clear days for the purpose of endorsement. A printed report can be had on application at the offices.

Offices, Winchester House, Old Broad-street, Feb. 9, 1853. 58

MOUNT CARBON CHARTERED COAL AND IRON COMPANY, VIRGINIA, U.S.—The proprietors of this Company, in reply to numerous inquiries made at their offices, notify, that they are only AWAITING the ARRIVAL of the eminent MINING INSPECTOR and GEOLOGIST who was dispatched to America to inspect the district in which the Mount Carbon Coal-field and Iron Mines are situate, to ISSUE their COMPLETE PROSPECTUS, intending to publish his official report therewith, which is already known to be most favourable.

No. 30, Bucklersbury, Feb. 10. 59

THE AUSTRALIAN DIRECT STEAM NAVIGATION COMPANY, VIA PANAMA.—The Directors beg to announce their intention of PROCEEDING with the ALLOTMENT OF THE SHARES on MONDAY, the 14th inst. JNO. CAMPBELL, Chairman. 60

THE DIRECTORS of the PORT OF SOUTHAMPTON EMIGRATION COMPANY beg to announce their intention of proceeding with the ALLOTMENT OF SHARES on MONDAY, the 14th instant.

Port of Southampton Emigration Company's Office, J. SOMERS, Sec.
63, Cornhill, February 10, 1853. 61

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY.

NEW ARRANGEMENTS, AND REDUCED FARES AND FREIGHTS.

DEPARTURES OUTWARDS. 62

INDIA and CHINA, VIA EGYPT.—For Aden, Ceylon, Madras, Calcutta, Penang, Singapore, and Hong Kong, on the 4th and 20th of every month from Southampton; and on the 10th and 26th from Marseilles.

AUSTRALIA VIA SINGAPORE.—For Adelaide, Port Philip, and Sydney (touching at Batavia), on the 4th of March and 4th of every alternate month thereafter from Southampton; and on the 10th of March and 10th of every alternate month thereafter from Marseilles.

MALTA and EGYPT.—On the 4th and 20th of every month from Southampton and the 10th and 26th from Marseilles.

MALTA and CONSTANTINOPLE.—On the 20th of every month from Southampton.

SPAIN and PORTUGAL.—For Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, from Southampton, on the 7th, 17th, and 27th of every month.

CALCUTTA and CHINA.—Vessels of the Company ply occasionally (generally once a month) between Calcutta, Penang, Singapore, Hong Kong, and Shanghae.

N.B.—The rates of passage money and freight on the India and China lines have been considerably reduced, and may be had upon application at the Company's offices, 122, Leadenhall-street, London, and Oriental-place, Southampton.

MR. G. F. MUNTZ'S (JUN.) PATENT SOLID BRASS TUBES, 12½*d.* per lb., delivered in any part of the United Kingdom.—In introducing these tubes to the notice of engineers and the public, the patentee respectfully directs their attention to some of the advantages which they possess over those previously in use:—

1st. Economy in the first cost.—2d. Greater durability, being made of a mixture of metal hard in its own nature, and not mechanically hardened, as ordinary brass tubes are, which renders them liable to split or burst when subjected to the expansion and contraction caused by the heating and cooling of the boiler.—3d. Equality of hardness throughout, the metal being sufficiently tough to bear expanding, when fixing in the boilers, without softening the ends, which is necessary in fixing the brass tubes previously in use, and which causes the softened parts to wear more.—4th. They are less liable to corrode than any mixture of brass which can be manufactured into tubes by the process previously employed.

G. F. Muntz's Patent Metal Company, French Walls, Birmingham, sole manufacturers.—Agents for London: Charles Moss and Co., 23, Fenchurch-street; Young, Dowson, and Co., Limehouse.—Bristol: E. Drew, Clifton Park.—Liverpool: C. Moss, and Co., Redcross-street. 63

SAFETY FUSE.—Messrs. WILLIAM BRUNTON and CO., PENHALLICK, near REDRUTH, CORNWALL, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

Messrs. BRUNTON & CO. are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE direct from their own MANUFACTORY, which warrant that it will prove equal to, if not better, than any to be procured elsewhere. 64

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, and DAVEY, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought into its centre*, which, being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.

Address,—BICKFORD, SMITH, and DAVEY, Tuckingmill, Cornwall. 65

TO RAILWAY AND TELEGRAPH COMPANIES, PROPRIETORS OF COLLIERIES, MINES, &c.—JAMES B. WILSON, of the HAYDOCK PATENT WIRE-ROPE WORKS, NEWTON-LE-WILLOWS, LANCASHIRE, is prepared to supply the public with FLAT and ROUND ROPES for PITS, MINES, and INCLINES, and also with his PATENT SUBMARINE TELEGRAPH ROPE; at the lowest prices of the day. The ropes are manufactured under his improved patent, substituting a strand of fine wires for the core in lieu of a hempen one, as at present used. 66

WHEAL JAMES COPPER AND IRON MINE.

ROCHE, CORNWALL.

Conducted on the "COST-BOOK PRINCIPLE."

In 6000 shares of £1 each, to be paid for on allotment.

Held under a lease of 21 years from Sir R. Vyvyan.—Dues 1-16th.

COMMITTEE.

Mr. RICHARD GILL, architect, Launceston. 67

Mr. WILLIAM PROCKTER, Launceston.

J. G. MAXWELL, Esq, Bideford.

J. D. YOUNG, Esq., Barnstaple.

BANKERS—Devon and Cornwall Company, Launceston.

BROKER—Mr. J. B. Balcombe, 19, Royal Exchange, London.

PURSER—Mr. J. E. Prockter, Launceston.

MANAGER—Capt. John Dale.

The formation of a Company to work these rich and valuable mines is deemed most important in the present crisis, when the supply of ores is not by any means equal to the demand. The duties to be performed by the present company will be both agreeable and profitable, for their predecessors left a most inexhaustible supply behind them; and from a moderate calculation made, 25 per cent. profit per share will accrue to the shareholders on the iron deposits alone; and the copper lodes are so very rich, that from three assays of the grey ore, made by eminent assayers, an average of 55 per cent. will follow. These mines are now in full operation, a cargo of ore is almost ready for shipment, and in April Wheal James will take the enviable position of being placed in the dividend list.

THE DEVON TIN MINES,

DARTMOOR, DEVONSHIRE.—In 10,000 parts or shares.

On the "Cost-book Principle," with large paid-up capital, and subject to the rules and regulations agreed upon by the shareholders themselves at bi-monthly meetings.

£1 per share to be paid in full on all shares subscribed for.

The mining sett is held direct from the Duchy of Cornwall for 21 years, from the 1st November, 1851, at 1-18th dues, or royalties, and a small yearly rent.

The object of the present enterprise is immediately to commence mining operations on, and, if found desirable, fully to develope the mineral wealth in tin in the mining sett lately granted on behalf of H.R.H. the Prince of Wales over an extensive district in Dartmoor, bounded by rivers affording ample water-power, and where considerable facilities for mining exist; and machinery to carry large operations into effect is now erected and ready for immediate work.

To make this enterprise of a first-rate character, and to insure efficient management, and so far as possible success in its intended operations, it has been decided that a sum of not less than £5000 shall form the basis of the actual capital to be at once called up and invested.

The following gentlemen (already shareholders) have expressed their willingness to act as members of committees of management and finance of the proposed enterprise, to be confirmed, or other committees elected, by the shareholders at the first general meeting after £3500 capital shall be subscribed:— 66

R. M. BATES, Esq., 217, Strand

H. E. BICKNELL, Esq., Upper Bedford-place, Russell-square

T. C. BATES, Esq., Drayton-terrace, Brompton

H. F. GIBBONS, Esq., Egham, Surrey

A. GREIG, Esq., Lowndes-street, Belgrave-square

ROBERT GIBSON, Esq., Sandhurst Lodge, Workingham, Berks

Captain G. W. KEANE, Montpelier-road, Brighton

FREDERICK LAWRENCE, Esq., Elm-court, Temple

F. S. PARRY, Esq., the Steine, Worthing, Sussex

W. TYLER, Esq., Bolt-court, Fleet-street

SHIRLEY F. WOOLMER, Esq., 11, Chancery-lane, London

AND ALSO AS A LOCAL COMMITTEE

WILLIAM WILLS, Esq., Totness, Devon

EDWARD WOOLMER, Esq., Exeter

SECRETARY AND PURSER—J. Whitton Arundell, Esq., 26, New Bridge-street, London.

BANKERS—Messrs. Strahan, Paul, and Co., 217, Strand.

SHARE BROKERS—Messrs. Carden and Whitehead, Royal Exchange-buildings.

OFFICES,—No. 26, NEW BRIDGE STREET, BLACKFRIARS.

A large amount of the shares have been already subscribed for, and sums exceeding £2000 have been paid, and are now in the hands of Messrs. Strahan and Co., bankers, London, on account of the new mines.

Subscriptions for 3000 shares only are now invited, and for which very early application must be made.

For further particulars, copies of reports, surveys, and all other matters connected with the mines, apply to (or address by letter) J. W. Arundell, Esq., the secretary, at the office of the mines, No. 26, New Bridge-street, Blackfriars, London.

FORM OF APPLICATION.

(To be sent to the Secretary.)

TO THE COMMITTEE OF MANAGEMENT AND FINANCE OF THE DEVON TIN MINES.

I am desirous of being a shareholder for shares of £1 each in this enterprise, and agree to accept the same, or any less number, and pay the amount of £1 per share into the banking house of Messrs. Strahan, Paul, and Co., 217, Strand, whenever required thereto.

Dated the day of , 1853.

Reference.....

Name .....

Address .....

Profession .....

WEST WHEAL LOVEL TIN AND COPPER MINE,—

IN THE PARISH OF WENDRON, CORNWALL.

TO BE WORKED ON THE COST-BOOK PRINCIPLE.

Dues, 1-15th; Lease, 20 years, from November, 1852.

In 2050 shares—1000 to be issued to the public at £1 10s. each, to defray the expenses of premium and work already done to the end of December, 1852. There is sufficient money in the hands of the purser to carry on the mine for the next two months. Six men are now employed in driving the adit to intersect the lodes. The remaining 1050 shares are held by respectable parties, and no free shares are reserved by the originators. PURSER—Peter Clymo, Esq., Liskeard.

AGENT—Capt. Richard Kendall, of Wheal Lovel and Trumpet Consols Mines.

BANKERS—Messrs. Robins, Foster, and Co., Liskeard.

PROSPECTUS. 69

This mine is situated in one of the richest tin districts in Cornwall, adjoining the well-known mines of Wheal Lovel and Trumpet Consols, which have paid, and are still paying, large profits to the shareholders. The old Trevena Mine is close thereto, and now working by a spirited company of adventurers. The most productive lodes of these mines run through the whole length of the sett, which is upwards of 500 fms.; consequently, it offers one of the greatest possible and most encouraging inducements for investing the capital required to give it a full and fair trial.

The reports from agents of known experience and respectability in the locality (which are annexed) are of the most favourable character.

Application for shares to be made to H. B. Rye, Esq., 77, Old Broad-street, London, who will show the plans and give any information required.

REPORTS.

July 8, 1852.—According to your wish, I have inspected the above sett, which I find to be in immediate connection with Wheal Lovel, and with one of its most productive lodes passing through it. Trevenen main and south lodes also pass through it, and from which two lodes the lord received £17,000 for dues in 14 years' working, and only to a shallow depth. The sett is pretty extensive, and embraces several other lodes, which are cut in the adit; and as the adit is in the sett (its Wheal Lovel adit), you could drive on either of those lodes to a great advantage. The whole of this ground is unexplored, save some shallow workings on the backs by the old men. The Goblet lode in Wheal Lovel is the most productive tin lode in the district; the improvement took place in it at the intersection with the Good Luck branch, from which point a strong shoot of tin is being pursued with great success; and, looking at the oblique direction of this branch, you will perceive that two such intersections will occur in this sett. The large cross-course shown on the plan is the main one in Trumpet Consols, and it looks like an important part of the sett. In conclusion, I would observe that there are more than ordinary facilities for developing these lodes, the ground being moderate, water easy, and but a short distance from a sea port. On the whole, I call it a most eligible speculation.

Mr. Richard Hawke. JOHN MEDLEN, of Wheal Pool, formerly of Herodsfoot.

This mine is situated in the parish of Wendron, in the county of Cornwall, adjoining the well-known Wheal Lovel, Trevenen, and Trumpet Consols Mines, having all the Trevenen lodes, many of those of Wheal Lovel and Trumpet Consols, Wheal Vats lodes, and also a large cross lode, close to which the lodes have been very productive in Trumpet Consols.

This sett is nearly all unexplored, and in maiden ground. Wheal Lovel adit is brought into the sett on the eastern part, where a horse-engine was erected, and tin raised on Cape's lode in Wheal Lovel, but on the other lodes little or nothing has been done within the memory of man. It affords a fair investment, and is well worthy the attention of capitalists; and to put this mine into a profitable state of working, an engine of 36 in. cylinder will be necessary.

R. S. BRYANT, Manager of North Crenver Mine.

(Signed) JAMES JAMES, Agent of Wheal Lovel.

RICHARD KENDALL, Manager of Trumpet Consols.

J. B. WILKIN, Agent of Trumpet Consols.

West Wheal Lovel, Dec. 11, 1852.—Having carefully inspected this mine, I beg to hand you my report thereof. This sett is very extensive, and is situate in the parish of Wendron, in the county of Cornwall. It is bounded on the east by Wheal Lovel, on the north by Wheal Union and Trumpet Consols, and on the west by the well-known Trevenen Mine; several of the productive lodes in the above mines run through the whole length of this sett, and there are others in the south part which have not been wrought on, and which I consider well worthy of trial. Looking at the situation, the promising strata, and the many tin lodes running through it, I consider it to be well worthy of a spirited trial, and have no doubt of the adventurers being well rewarded for their outlay. I am, gentlemen, your obedient servant,

(Signed) HENRY HODGE, Agent of Wheal Mary Ann.

To the Adventurers in West Wheal Lovel.

West Wheal Lovel, Wendron, Jan. 10, 1853.—I have closely inspected this sett, but as you have already got detailed reports on it, signed by several mine agents of respectability, practical experience and character, with whose opinions I fully concur, a lengthened report from me, when I can add nothing new to what they have already expressed, is superfluous. I beg to add, that from its possessing the same lodes and intersections, and in the same general strata as the mines immediately adjoining, which are now productive and profitable, I see no reason why this should not prove as good as either of them, and I, therefore, consider it a valuable sett. I remain, &c.,

Peter Clymo, Jun., Esq. JAMES OSBORN,

Manager of Wheal Robins and Venton Mines.

West Wheal Lovel, Wendron, Cornwall, Jan. 10, 1853.—Agreeably to your request, I have again carefully inspected this mine, which is granted to you for 20 years by the Duchy of Cornwall, and herewith I hand you my report thereof.

This sett is situated in a very favourable locality for tin, being bounded on the north and east by the well-known Wheal Lovel, Wheal Union, and Trumpet Consols Mines, the productiveness and profitableness of which are well known as dividend-paying mines (for which see the columns of the *Mining Journal*). It is bounded on the west by the old Trevenen Mine, and which is being resumed under the superintendence of Captain Michael Martin. I have been over the surface, and also underground at the adit level, and have seen two lodes in the south part of the sett of good size and character, in a very congenial stratum for tin; and I have no doubt of there being good and productive lodes at a moderate depth; these lodes are to the south of the above-named mines, and I would suggest your driving east on the south lode to intersect the great cross-course, which runs also through the Trumpet Consols Mine, where large deposits of tin have been raised; then to drive north to intersect Wheal Lovel and Trevenen lodes, which have been very profitably worked in these setts, and will, I fully expect, be equally as profitable in this. A shaft has been sunk near the eastern boundary of the sett, on one of the Wheal Lovel lodes, about 12 fms. under the adit (and water drained by the application of a horse-whim), and a level extended about 20 fms. west on the lode, which, with the stopes in the back to this extent, produced 900*l.* worth of tin. I am, gentlemen, your obedient servant,

To the adventurers in West Wheal Lovel. HENRY HODGE.

FOX TOR TIN MINING COMPANY.

PARISH OF ALTARNUN, COUNTY OF CORNWALL.

To be conducted on the "COST-BOOK PRINCIPLE."

Capital £24,000, in 24,000 shares at £1 per share, to be paid up on allotment, and issued in Scrip Certificates to holder, of five shares each.

No further liability to be incurred.

COMMITTEE OF MANAGEMENT.

PITT BAKER, Esq., Gloucester-terrace, Hyde-park.

T. BROOKS, Esq., Haverstock-park.

A. A. DORIA, Esq., Lincoln's-Inn.

HENRY J. R. ELWORTHY, Esq., Kentish-town. 70

JOHN MARSHALL, Esq., Regent-street.

GEORGE TRICKETT, Esq., Bishopsgate-street.

J. W. WOOD, Esq., Great College-street, Westminster.

(With power to add to their number.)

BANKERS—Messrs. Rogers, Olding, Sharpe, and Co.

BROKER—F. A. Helps, Esq., 21, Finch-lane.

SOLICITOR—James Wyatt, Esq., 10, Gray's-Inn.

PURSER AT THE MINE—Mr. John Peter, Callington.

PROSPECTUS.

This Company is formed for the purpose of working the valuable tin lodes contained in a sett of large area, held by sub-lease for a term of 10¼ years (subject to renewal), in the well-known mining district of Five Lanes, situate in the parish of Altarnun, county of Cornwall, at 1-15th dues. Four shafts have been sunk 10 fms. each, and one 16 fms.; different adits, together about 300 fms., have been driven in the 10 fm. level, and these provings have produced about £2000 worth of tin ore.

Applications for shares may be made to the brokers of the company, to the Committee of Management, or to the secretary, where prospectuses and printed forms may be obtained. J. HUNTER, Secretary.

Offices, 30, Bucklersbury.

ABSTRACT OF CAPTAINS' REPORTS.

No. 1.—I was an agent at Fox Tor for about three years; and in that time we raised a great quantity of tin of a superior quality, and many hundreds of pounds worth more we should have raised in the same time if we had had sufficient water to work the wheel; there is no doubt, if worked with good machinery, it will leave a paying mine to the adventurers. THOMAS REYNOLDS, Altarnun Consols.

January 1, 1853.

No. 2.—I can strongly recommend any person to lay out their capital on this mine, fully believing in the end they will be well rewarded. WM. LEAN, Holmbush.

No. 3.—In the western part of the mine I have seen excellent tribute courses of tin, and have no doubt but that it will make a good mine, if proper machinery were erected to work efficiently. If the mine should be drained out again, I should readily take a pitch at 6s. in the pound.—Jan. 3, 1853. HENRY HOOPER, Fox Tor.

No. 4.—Six miners have offered to take the tribute at 6s. to 6s. 8d. in the pound, as soon as the water is pumped out.

THE DINAS GREAT COPPER MINE.

IN THE PARISH OF PENMORFA, COUNTY OF CARNARVON.

In 8000 shares of £3 each.—Deposit 10s. per share.

On the "COST-BOOK SYSTEM."—No deed to be signed, and no liability beyond the shares held.

OFFICES,—76, KING WILLIAM STREET, LONDON BRIDGE.

COMMITTEE OF MANAGEMENT.

WILLIAM GARNER, Esq., 55, Southampton-row.

W. WHITE, Esq., Herintage-terrace, Bow.

BENJ. JONES, Esq., Bond-court House, Walbrook. 71

WILLIAM SHAW, Esq., Kensington-park-terrace.

JAMES WINTER, Esq., Brentwood, Essex.

JOHN BRYDIE, Esq., 4, Farringdon-street.

ALFRED RODRIGUES, Esq., 73, Newgate-street.

WILLIAM LELEAN, Esq., 76, King William-street.

THOS. KELLY, Esq., Dunster-court, Mincing-lane.

CHRISTR. NETHERWOOD, Esq., Upper Clapton.

C. B. WILSON, Esq., Furnival's Inn.

EDWARD WINTER, Esq., Epping, Essex.

GENERAL MANAGER—William Lelean, Esq.

BANKERS—The Royal British Bank. | AUDITOR—William Carpenter, Esq.

CAPTAIN AND PURSER—John R. Hughes.

This mine is held under lease for 24 years, at a royalty of 1-12th of copper, and all other minerals which may be raised on or from it. It extends over 500 acres of rich mineral land, and is on the east joined by a property of great metalliferous richness; on the west by the Cachelyg Mine, now being profitably worked by a Dublin company; and on the north by the Drws-y-Coed Mine, which a Liverpool company is working at a profit of £1000 a month.

The Dinas promises very large and speedy returns for the capital expended upon it. A copper lode runs south-east and north-west direct into the rich Gilvach Copper Mine, and is from 15 to 20 yards in width—the ore yielding about 25 per cent. Being situated on a considerable eminence, it offers great facilities for working; and the supply of water immediately close at hand is fully sufficient at all seasons of the year for the dressing and washing of the ore. As there is sufficient depth on the hanging side of the land to drive any number of levels to intersect the lode, no machinery will be required for either pumping or drawing. It is obvious, therefore, that speedy as well as large returns may be looked for by the shareholders. The Dinas is about nine miles from Port Madoc, where the ore can be shipped at from 6s. to 7s. per ton.

The great advantages presented in this mine are not only that it is bounded by the richest mineral districts in Wales, and that the samples of ore which it has produced are equal to the best in the neighbourhood, but that its formation renders it capable of being cheaply and rapidly worked without the aid of expensive machinery. The reports appended to this prospectus will more than justify what the promoters have here said of its value.

As a considerable number of the shares have been already taken up, application for those remaining must be made without delay, at the offices of the company, 76, King William-street, where specimens of the ore may be seen, and prospectuses and every information obtained.

REPORTS.

Feb. 5, 1853.—I have inspected this mine, which covers about 500 acres of very rich mineral land, and from present appearances and careful observation, I find it of a most valuable nature, and worthy the attention of capitalists.

The lode bearing S.E. and N.W. runs from 15 to 20 yards in width. Ore of a very rich quality, and which (if tested) will yield 25 per cent.

This mine is bounded by the well-known mineral districts Blaen-y-Pennant and Gilvach, and I am confident that by a spirited opening very excellent returns will soon be made to liquidate all expense of labour, and clear considerable profits.—Expense of working, say from £6 to £7 per fathom.

The present level, which is now driven a few yards north, is, in my opinion, close to a strong bunch of ore. Also, this copper congeals with slate, clay, and spar in abundance, which is considered, in these districts, good, in conjunction with copper.

Also, this mine is situated on a great eminence, and will afford ample space for very many new levels, so as to work the mine properly, honestly, and to advantage.

A good supply of water passes the work, equivalent to work any machinery.

ROBERT WILLIAMS, Mine agent, Aberglashyn, Beddgelert.

Feb. 1, 1853.—This mine extends through a mineral property of 500 acres; it consists of a very large lode, 14 yards wide, running nearly east and west, dipping to the north; it is composed of spar, shale, and slate rock, strongly mixed all through with copper of an excellent quality, especially near the heading and hanging-walls, indicating that there must be a great body of copper therein.

There is an extraordinary and conspicuous advantage to proceed with the working of this mine by levels, to intersect the lode at different places, which can be done at trifling expense, as the levels required would be but short to intersect the lode at right angles, which would be several fathoms beneath the surface; these levels would at once dispense with the necessity of any machinery for either pumping or drawing. There is also a sufficient supply of water at all seasons of the year for the dressing and washing of the ore, to render it marketable. The advantageous situation, and the extraordinarily promising appearance of the ground, lead me to the conclusion that it cannot fail to be productive, and amply compensate the adventurers. Certainly this is my unbiassed opinion. W. T. FOX, Gilvach Mine Agent, Carnarvonshire.

Jan. 8, 1853.—The vein of copper is from 15 to 20 yards wide, and runs from south-east to north-west; the best copper is found in the hanging side, near the creek. It is deep enough at the hanging side to drive a level at any depth. There is a cross-cut from the hanging side to the heading side; it must be driven 5 or 6 yards before we find a lode on the heading side. There is a level on the heading side, and specimens of good copper ore among my samples from it. There is a little copper through the cross-cut in the joints, feeders, and leaders, to the lode of copper, and there is real copper rock in the vein. To the east, copper has been found on the next farm; the proprietors ask £3000 for it, and are sure to get it. In the west, there is a company from Dublin carrying on a good copper mine (Cachelyg Mine), which is in the next farm to the Dinas; and to the north, there is a copper mine called Drws-y-coed, which is worked by a company from Liverpool, and yields £1000 a month of profit. The Dinas Mine is situated amongst the best mines in Wales, and on the top the vein looks wider than any of the other works in the neighbourhood. There is a good quantity of copper, the same as the sample on the bank.

JOHN N. HUGHES.

KNOCKATRELLANE COPPER MINES,

COUNTY OF WATERFORD.

Capital £20,000, in 20,000 parts, or shares, of £1 each, with no further liability.

Held under lease for 31 years, at 1-16th royalty.

To be Conducted on the "COST-BOOK PRINCIPLE."—No Deed to be signed.

These Mines are situated in the Town Lands of Knockatrellane and Graignagower, in the parish of Kilronan, in the county of Waterford.

COMMITTEE OF MANAGEMENT. 72

The Right Hon. LORD KINGSALE, Kinsale.

The Right Hon. LORD MUSKERRY, Carlton Club, and Springfield Castle.

Col. J. C. CHATTERTON, K.H., Green-street, Grosvenor-square.

FRANCIS FORD, Esq., Lawrence Pountney Hill.

GEORGE GRIFFIN, Esq., Beale's Wharf, Southwark.

SAMUEL HINDS, Esq., 61, Portland-place.

JOHN LANGLEY, Esq., Knockanune, county Tipperary.

Capt. MILLER, J.U.S.C., and Suffolk-street, Pall-mall.

JOHN MILLETT, Esq., Lismartagh House, county Tipperary.

(With power to add to their number.)

BANKERS—Messrs. Spooner, Attwood, and Co., Gracechurch-street, London; The Provincial Bank of Ireland, Dublin, and its branches.

SOLICITORS.

H. C. Elliot, Esq., 69, Lincoln's-Inn-fields; A. Coates, Esq., Ballymacarberry.

BROKERS—Messrs. Ballantine, Read, and Middleton, 4, Austinfriars; Messrs. Smyth and Dubedat, Dublin.

SECRETARY—Francis Stokes, Esq., Brompton-square.

ASSISTANT-SECRETARY—Henry Carr, Esq.

OFFICES,—No. 3, GREAT ST. HELEN'S.

Applications for shares, in the annexed form, may be made to the Committee of Management, at the offices of the Company, or to the brokers and solicitors, where prospectuses may be obtained:—

To the Committee of Management of the Knockatrellane Copper Mines.

GENTLEMEN,—I request you to allot me shares in the above Company, and I hereby agree to accept the same (or any less number you may please to allot), and I also undertake to pay the amount thereon, when required.

Your obedient servant,

Name .....

Address .....

Reference ..... Date .....

WEST CRINNIS COPPER MINE

IN THE PARISH OF ST. AUSTELL,

Near Great Crinnis, Pembroke and East Crinnis, Par Consols, Boscundle, and Charlestown United Mines. Produce—Copper.

PURSER—Mr. Thomas Lewis, St. George's Chambers, High-street, Birmingham.

CAPTAINS—Inspecting Captain: John Webb.—Resident Captain: John Rosewarne.

COMMITTEE.

C. HINKS, Esq., Drayton-grove, Brompton, London.

J. BARKER, Esq., M.D., Richmond, Surrey. 73

H. PARRISH, Esq., Balsall Heath, Birmingham.

W. C. MORGAN, Esq., St. Austell, Cornwall.

RESIDENT DIRECTOR—W. C. Morgan, Esq.

OFFICES,—ST. GEORGE'S CHAMBERS, HIGH STREET, BIRMINGHAM.

In 2560 shares at £2 each.

CHYPRASE CONSOLS MINING COMPANY.—

MINUTES of the PROCEEDINGS of the SPECIAL GENERAL MEETING, held at the Stork Hotel, Old Square, Birmingham, on Friday, February 4th, 1853,

Mr. CHARLES HINKS, in the chair.

On the motion of the chairman, seconded by Mr. John White, it was resolved unanimously:—

That the machinery be removed from its present position to the West Crinnis Copper Mine, near St. Austell; that 1280 additional shares be issued at £2 each, payable by a deposit of 10s., on application, and three equal quarterly instalments; that the title of the company be in future the "West Crinnis Copper Mining Company;" that in case any additional capital be required then, that the same shall be made by a call upon the whole of the shares, of which, at least, one month's notice shall be given to each shareholder; and that any shareholder choosing to withdraw from the company be allowed to do so, with his share of the machinery, in case he intimates to the purser his intention of doing so within 21 days from the date of this meeting, but not otherwise.

Proposed by W. W. Mansell, Esq., and seconded by Mr. H. Parrish:—

That the words "six months," in Rule VII, which refers to the forfeiture of shares for the non-payment of calls be erased, and in lieu thereof, that the words "twenty-eight days" be substituted; so that, in future, all shares upon which any call shall remain unpaid for more than 28 days after the same shall have been made, will become forfeited. Signed, CHARLES HINKS, Chairman.

Proposed by Mr. Joseph Harrop, and seconded by W. W. Mansell, Esq.:—

That this meeting hereby presents its thanks to the committee and officers of the company, and expresses its entire confidence in their management and proceedings.

Signed, W. W. MANSELL.

TREBURGET CONSOLS MINING COMPANY

(COPPER AND SILVER-LEAD).

TO BE CONDUCTED ON THE COST-BOOK SYSTEM.

Capital £25,000, in 50,000 shares of 10s., to be issued in Scrip Certificates to holder, of Five Shares each.—No further liability or risk to be incurred.

COMMITTEE OF MANAGEMENT.

D. L. DAVIS, Esq., Spencer-street. 75

AUGUSTUS GADESDEN, Esq., Gray's-inn-square.

ROBERT R. GEACH, Esq., Bodmin, Cornwall.

J. G. LAWTON, Esq., Upper Seymour-street.

THOMAS PROUT, Esq., Bedford-street, Plymouth.

Capt. T. SHARPE, H.E.I.C.S., Leamington.

JOHN WOOD, Esq., Sunny Hill, Berks.

(With power to add to their number.)

BANKERS—Messrs. Rogers, Olding, Sharpe, and Co.

SOLICITORS—Messrs. James and O. A. Jenkyn, Sherborne-lane.

PURSER AT THE MINE—John Peters, Callington.

BROKER—Oliver Raymond, Esq., 6, Bank Chambers.

OFFICES,—30, BUCKLERSBURY, LONDON.

This company is formed for the purpose of working the copper and lead lodes in a sett adjoining the well-known mineral district of the Treburget Mines, situate in the parish of St. Teath, Cornwall, known as the Trehannick estate, comprising the large area of 149 acres of rich mineral land, held by lease from the lord of the manor for 21 years, at 1-15th royalty.

Parties desirous of becoming shareholders will please to apply in the usual way, by letter, addressed to the Committee of Management, at the Company's offices, 30, Bucklersbury, or to Oliver Raymond, Esq., broker, 6, Bank Chambers, where prospectuses may be obtained. JOHN HUNTER, Secretary (pro tem.)

N.B. Full reports of this valuable sett have been obtained from the undermentioned well-known mining captains in the district—viz., Capt. W. Lean, of Holmbush; Capt. W. Toy, of Old Treburget; Capt. Thomas Julian, of Treburget United; Capt. John Kneebone, of Pentireglaze; Capt. Thomas Reynolds, of Altarnun Consols; and Capt. Samuel Gregory, of Great Tregune Consols; which may be seen at the offices of the Company on application.

TREBURGET CONSOLS MINING COMPANY.—The SHARE 76

LIST WILL BE CLOSED ON TUESDAY, the 15th inst.

30, Bucklersbury. JOHN HUNTER, Secretary.

THE CENTRAL AUSTRALIAN GOLD MINING COMPANY.

COMPLETELY REGISTERED.

Capital £100,000, in 100,000 shares of £1 each, to be paid up in full on allotment, and no other call or liability.

The Viscount DRUMLANRIG, M.P.—CHAIRMAN. 77

The Directors have the honour to inform the shareholders and the public, that their FIRST REPORT, containing the most encouraging despatches from their engineer in Australia, Thomas Warre Harriott, Esq., and their agent in Melbourne, Richard Cox, Esq., IS NOW PRINTED, and may be OBTAINED at the offices of the Company, where also all applications for the remaining shares may be made.

By order of the Board, JOHN SIMPSON, Secretary.

Offices, 11, Abchurch-lane.

THE MONARCH GOLD MINING COMPANY OF AUSTRALIA.

—The attention of the shareholders is directed to the recent discoveries of gold upon the Australian Agricultural Company's estate on the Peel River, which takes its rise on the Great Dividing or Liverpool Range, in New South Wales. The Government officers represent the Peel River Estate, of 313,000 acres, to be one vast gold-field, and that it is impossible to estimate its wealth. Specimens of quartz, found on the surface by the Commissioner, whilst riding over the property, were tested at Sydney, and yielded 8½ lbs. of gold, or the value of £350, to the ton of quartz. Since the advices from the colony to this effect, the shares of the company, with only £35 paid on each, have realised £300, thus giving a marketable value of £3,000,000 to a property which a few weeks since was only about £50,000. More recent advices state, that "Mr. Harding, the chief engineer and manager of the Australian Gold Mining Company, in speaking of the specimens of quartz he had seen from the Australian Agricultural Company's land, said, 'that he considered them more indicative of a rich field than any others that he had examined.'"—Vide *Times*, Jan. 13. 78

It will be recollected that one of the Monarch Company's estates, called "Big Jane" (comprising about 2560 acres, and held on lease for 21 years, at a royalty of 1-20th), is situate at the foot of the Great Dividing Range, and bounded on the north for several miles by the River Page, which, like the Peel, has its source in the Great Dividing Range. This land was selected in consequence of information received from a gentleman thoroughly acquainted with the colony, that the Great Range abounded in auriferous quartz; gold had been also found in the Hunter River (of which the Page is a tributary), and it was fairly assumed that gold would also be discovered nearer the source of the river. This estate is a few miles to the north-east of the Great Nugget vein, and is highly metalliferous, abounding in hematite iron of a high per centage. A commodious homestead, &c., is upon this estate, and tenanted by friends of the lessor. The company also hold a lease upon the same advantageous terms of 550 acres, near Lamb's Valley, on the Alleyn and Patterson (also tributaries of the Hunter River). It was on the Alleyn, a little to the north of this property, that Mr. Boydell found 13 lbs. weight of gold in one piece. A license to search for and obtain gold is also held upon the same terms, of about 10,000 acres, situate near Lake Bathurst, in the county of Argyle. Specimens of the rocks, soil, &c., from this district, collected by an eminent geologist, are now in the possession of the purser; and it is stated, upon high authority, that this district, south of Goulbourn Plains, has all the "geological features and geognostic formation of a large deposit of auriferous earth." This property extends, east and west, a distance of 10 miles.

It will also be recollected that the company was fortunate in securing the experience and services of Mr. Robert Dixon, who was engaged for 15 years under Sir Thomas Mitchell, the Surveyor-General, in surveying, and publishing a map of the colony, and who, in 1846, offered to conduct the then Governor-General to the auriferous formation in three distinct places on the Great Dividing Range, simply upon payment of his expenses. The offer, however, was declined by Sir George Gipps, on the ground that he had "no funds to devote to such a visionary purpose." Arrangements upon a mutual principle were entered into with Mr. Dixon, and a staff of assayists, mechanics, and labourers of tried ability and integrity. The company thoroughly equipped the staff, and engages to find rations for 12 months for a moiety of the gold to be obtained; Mr. Dixon, with the chief assayist, sailed in the *Carnatic* on the 16th Sept., and was followed on the 9th Oct., in the *Circassia*, by the mining staff, under the escort of Lieutenant Sanders. An additional number of hands embarked on board the *Circassia* at their own expense, upon the promise of employment, under the company's auspices, upon their arrival at Sydney. Both vessels have been spoken with—the *Carnatic* on the 16th Oct., in 1° south, the *Circassia* on 2d Nov., in 12° north lat.

The elements of the Company's success are simply as follows, viz.:—

1. The acknowledged richness of the auriferous deposits of New South Wales, wanting only an adequate number of hands in the collection of the golden treasure, to surpass Victoria in its yield, which is now estimated to exceed £350,000 per week.

2. The corroborated evidence of the existence of gold at the source of the Peel River, on the Liverpool Range, near one of the Company's estates, and again at Lamb's Valley and Lake Bathurst.

3. The advantage of highroads to the Company's lands.

4. The economy of tenure of said lands, and exemption from interference of strangers, not being Crown lands.

5. The cheapness of provisions, &c., and few inconveniences, in comparison with the densely-populated districts of the diggings in the sister colonies.

6. The regularity of supplies at the scene of operations, the property being tenanted by friends of lessors.

7. The integrity and ability of the agents and men employed, and the satisfactory nature of the arrangements entered into with them, and for their comfort and accommodation upon landing at Sydney.

8. The thorough equipment of the staff (all being armed) for route, under the experienced escort of Mr. Dixon.

Messrs. Ebsworth and Co. are the company's agents at Sydney, and the following is an extract from a letter to their agents in London, Messrs. Irving, Ebsworth, and Holmes:—

Sydney, July 27, 1852.—We accept with pleasure the agency of the London and Sydney (now the Monarch) Gold Mining Company, and congratulate the promoters on the appointment of our friend, Mr. Robert Dixon, as surveyor, as it would not have been possible to have fixed upon a man more experienced as to the places in which gold is likely to be worked with advantage. We shall no doubt shortly be put in possession of the directors' views. We consider that the capital, judiciously managed, would be sufficient to purchase outright enough land, and to erect buildings and machinery for crushing the quartz and amalgamating the gold. An indifferent selection ought to make £10,000 per annum, but should the Bathurst quartz bear anything like the value given to it by parties who have experimented upon it (and they say, from average samples) the profits of the speculation will be enormous. The board will be put in possession by us of every information on the subject; and you can assure the parties interested that everything shall be managed as economically as possible.

The publication of the above is necessitated, in consequence of the impracticability of applying in detail to the numerous letters daily received upon the subject.

Winchester-buildings, City, Jan. 14, 1853. T. A. READWIN, F.G.S., Purser.

NOTICE.—TO MERCHANTS, MINERS, and all OTHERS interested in the PRODUCTION of GOLD OR SILVER, either in Australia, California, North and South America, Great Britain, or any other part of the world.—I beg to announce, that I am at all times a PURCHASER of GOLD, in gossan, quartz, or other matrix, which contains 5 per cent. of gold or upwards; and of SILVER, no matter in what matrix, which yields 15 per cent. of silver or upwards.

My operation is exclusive, as my process avoids altogether the expense of crushing and other preparation, and, consequently, it is of vast importance to all mining undertakings, but more particularly to those who have to pay exorbitantly for labour.

BENJAMIN MASSEY, 116, Leadenhall-street, London. 79

COBALT AND NICKEL.—ALFRED SENIOR MERRY, REFINER AND PURCHASER OF COBALT AND NICKEL ORES, AND ASSAYER IN GENERAL.—Address, LEE CRESCENT, BIRMINGHAM. 80

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, MILL STREET, BROAD STREET, BIRMINGHAM.—STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL. | OXIDE OF COBALT. | WIRE, &c.
REFINED METALLIC BISMUTH. | GERMAN SILVER—IN INGOTS, SHEET, NICKEL AND COBALT ORES PURCHASED. 81

LOSH, WILSON, AND BELL, NEWCASTLE-ON-TYNE, MANUFACTURERS of BAR-IRON, RAILWAY BARS, FORGE and ENGINE WORK, CAST-IRON GOODS, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES. OFFICE,—7, SISE LANE, LONDON. 82

MR. J. HODGSON JONES, CONSULTING ENGINEER, 1, POET'S CORNER, WESTMINSTER, representing the firm of NEILSON AND CO., GLASGOW, Manufacturers of High-pressure, Condensing, or Double Cylinder Steam-Engines; Marine and Locomotive Engines; Winding and Cornish Pumping Engines; Steam Boilers; Sugar Mills; Iron Roofs and Bridges; Hydraulic Presses and Pumps; Steam Cranes; Mill Gearing and Shafting; all Ironwork and Machinery connected with Railway, Gas, Water, and Ironworks; Heavy Forgings and Castings, and Iron Steamboat Builders. 83

MESSRS. DISTIN AND CHAFE, ENGINEERS, DEVONPORT, MANUFACTURERS OF PUMPING, DRAWING, STAMPING, and other CONDENSING STEAM-ENGINES, CHILIAN MILLS, STAMPING, CRUSHING, and every other description of MACHINERY. Gold companies supplied with machinery and mining tools to any extent; and competent engineers engaged to erect and work machinery in Australia and California. 84

NICHOLLS, WILLIAMS, AND CO., ENGINEERS AND IRON FOUNDERS, BEDFORD FOUNDRY, TAVISTOCK; and ROSELAND VALE FOUNDRY AND HAMMER MILLS, LISKEARD; beg to announce to the Gold Mining Companies, that they are manufacturing HORIZONTAL and PORTABLE STEAM-ENGINES of all sizes, fit for PUMPING, CRUSHING, and OTHER PURPOSES. There are several advantages over the perpendicular rotary engine:—1. The bob is dispensed with, and heavy sweep rod.—2. The cost of erection is much less, both in engine and buildings; sheds put up with wood may be applied instead of stone walls, especially in foreign climes, where wood is plentiful, and can be removed at much less cost.—Also, MANUFACTURERS of CHILIAN CRUSHING MILLS (on the newest principle), and CORNISH CRUSHERS, similar to those used in the mines of Devon and Cornwall. DRESSING and MINING TOOLS of every description kept on SALE.—Companies supplied with working engineers and mechanics, for erecting machinery in any part of the world. 85

WM. PHILLIPS AND CO, PATENT GALVANIZED IRON-WORKS, SHADWELL STREET, BIRMINGHAM, CONTRACTORS for the ERECTION of GALVANIZED CORRUGATED IRON ROOFS and BUILDINGS, TELEGRAPH, and other WIRES, SHEETS, TUBING, &c.; also, for GALVANIZING WROUGHT and CAST-IRON WORK of every description. Estimates and drawings furnished on application at the works. 86

MR. LELEAN, No. 76, KING WILLIAM STREET, CITY, TRANSACTS BUSINESS in HOME and FOREIGN MINES, INSURANCE, BANKING, RAILWAY, and other SHARES. Every information derivable from a lengthened experience is offered. 87

MR. J. H. MANDEVILLE REMOVED TO No. 2, PINNER'S HALL COURT, OLD BROAD STREET. 88

MR. GEORGE CARNE, DEALER IN STOCKS AND SHARES, 28, THREADNEEDLE-STREET, LONDON. 89

MR. E. GOMPERS, MINING SHARE DEALER, 11, SCARBOROUGH STREET, GOODMAN'S FIELDS, LONDON. 90

MR. GEORGE EDWARD FENTON, MINING SHARE BROKER, No. 5, ADAM'S COURT, OLD BROAD STREET, LONDON. 91

MR. MICHAEL WILLIAMS BAWDEN, MINE BROKER AND GENERAL ASSAYER, LISKEARD, CORNWALL. 92

MR. RICHARD HAWKE, MINE SHARE BROKER, LISKEARD, CORNWALL. 93

CROKER BROTHERS, STOCK AND SHAREBROKERS, PLYMOUTH. 94

MINING OFFICES, 7, GEORGE YARD, LOMBARD STREET, LONDON.—WILLIAM HUNSLEY FOX OFFERS HIS SERVICES to parties interested in MINES, HOME or FOREIGN; all orders, either for SALE or PURCHASE, promptly executed. Every information respecting the Gold Mines of Australia and California, and lists of prices, furnished on application. 95

GOLD, MINING, RAILWAY SHARES, &c.—Messrs. KENWORTHY AND CO. TRANSACT BUSINESS in ALL DESCRIPTIONS of STOCKS at the CLOSEST PRICES of the day; and ADVISE (CONFIDENTIALLY) with parties as to the best means of employing spare capital, either for speculation or permanent investment, whereby CERTAIN RETURNS are assured. Country interrogations promptly replied to.—Address, or apply, Kenworthy and Co., 37, Old Broad-street, City. 96

MESSRS. CARTHEW AND CO., MINING AGENTS, from Cornwall, having had a very long experience in the mines there, beg to OFFER THEIR SERVICES to any parties willing to TRANSACT BUSINESS in such matters. Dealers in Wheal Kitty, Prince Albert, Perran Wheal Jane, Wheal Squire, Penzance Consols, East Wheal Margaret, Levant, Wheal Bal, Wheal Carne, Spearne Consols, Balleswidden, Wheal Augusta, Wheal Owles, Boscean, Boswidden, East Halamanning, Halamanning, Polkerris, Hawke's Point, Rocks and Treverbyn.
Mining Offices, No. 3, Crown-court, Threadneedle-street, London. 97

1, CROWN-COURT, THREADNEEDLE-STREET.

MESSRS. POWELL AND COOKE, MINING BROKERS, OFFER THEIR SERVICES for the PURCHASE or SALE of MINING PROPERTY; and being in constant communication with agents of practical experience, are in a position, and will not hesitate, to recommend, when called on to do so, such mines as they consider safe investments. Messrs. Powell and Cooke refer with great pleasure to their special list, and still recommend Tavy Consols, Wheal Russell, Wheal Yeoland, Boringdon Consols, and Devon Kapunda, all of which, from their prospects and prices, present a fair opportunity for speculation. Lists of prices of dividend and other progressive mines, either on application or by post.
Messrs. POWELL AND COOKE are also in a POSITION to BUY or SELL for PRINCIPALS in all FOREIGN MINES, without any addition to the usual commission. Office Hours from Half-past Nine till Five.—Dated 4th February, 1853. 98

MINING RECORD OFFICE, 26 AUSTINFRIARS, LONDON.—Mr. MANUEL'S OFFICES are expressly for the USE of COMMITTEES and COMPANIES conducting their BUSINESS in LONDON, and entirely free from share dealing. Mr. MANUEL will be happy to CONDUCT the LONDON AGENCY of any MINES now at work, or about to be worked, he having spacious and convenient OFFICES for that PURPOSE.—Terms on which the business is conducted to be had on application, either by letter or in person. Sixteen years' experience will enable Mr. Manuel to give suitable advice on all occasions.—Offices of the West Wheal Rose, West Callington, Busparvo, Gallt-y-Maen, Great Crinnis Consols, Union Tin. 99

MINING INVESTMENT.—T. FULLER AND CO., 51, THREADNEEDLE-STREET, LONDON, beg to call attention to the very favourable opportunity of PURCHASING in safe DIVIDEND-PAYING MINES, which will pay from 15 to 25 per cent. upon present purchase; also in others approaching that state, and upon which a great rise is anticipated, particulars of which may be obtained, either personally or by letter. T. Fuller and Co. being in daily communication with agents of high and scientific, and practical experience, have the means of obtaining the most correct information of the principal MINES in Devon, Cornwall, and Wales; and have specially FOR SALE the following SHARES:— 100

	DIVIDEND MINES.	
Alfred Consols	Merllyn	West Caradon
Bedford United	East Wheal Rose	West Providence
Carn Brea	South Caradon	Wheal Reeth
Condurrow	Spearne Consols	Wheal Trelawny
Devon Great Consols	Treviskey and Barrier	Wheal Lovel
Gonamena	Trumpet Consols	Wheal Basset
	PROGRESSIVE MINES.	
Anna Maria	Devon United	South Carn Brea
Butterdon	East Wheal Russell	Tavy Consols
Clive	Great Wheal Alfred	Wheal Arthur
Chyprase Consols	Hingston Down Consols	Wheal Mary Ann
Craddock Moor	N. Britain Burra Burra	Wheal Crebor
Carbona	North Wheal Trelawny	Wheal Trefusis
	GOLD MINES.	
Agua Fria	Colonial Gold	Quartz Rock [ment
Anglo-Californian	Golden Mountain	Scottish Austral. Invest-
Australian Freehold	Lake Bathurst	Monarch
Ave Maria	Nouveau Monde	West Mariposa
British Australian	N. British Australasian	St. John del Rey
Carsons Creek	Port Philip	United Mexican

T. Fuller and Co. have several PLOTS of FREEHOLD LAND FOR SALE, situate at Bathurst and Melbourne, suitable either for the extraction of the precious metal, and well adapted for the operations of a Company, or for agricultural or other purposes.

MESSRS. TREDINNICK AND CO., AUCTIONEERS, STOCK and SHAREBROKERS, and DEALERS in MINING and OTHER PROPERTY, 6, HAYMARKET, and 12, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON; and Mr. JOSEPH TREDINNICK, Stock and Sharebroker, Mine Inspector, and Machinist, HAYLE, CORNWALL.—Mines pay from 12½ to 15 per cent. per annum; and Messrs. TREDINNICK and CO. are at all times in a position to BUY and SELL in all DIVIDEND and promising MINES.
The Weekly List of Prices, and Circular of Mining Information, to be had upon application, of Messrs. Tredinnick. 101

THE WASHINGTON CHEMICAL COMPANY, NEWCASTLE-ON-TYNE; MANUFACTURERS OF

PATTINSON'S OXICHLORIDE OF LEAD.—The WASHINGTON CHEMICAL COMPANY having, during the last year, ESTABLISHED a MANUFACTORY of PATTINSON'S OXICHLORIDE of LEAD on a large scale, and being able to supply it with regularity, and to execute ORDERS without DELAY, now proceed to bring this new and valuable preparation of lead before their friends and the public, quite sure that it will not, in the present age, be condemned because it is new, and that if judged by its merits, it must make its way, and finally take its place as one of the important manufactures of this country.

PATTINSON'S OXICHLORIDE of LEAD is a chemical combination of one equivalent of chloride of lead and one equivalent of oxide of lead; it being well known that common white lead is a chemical combination of one equivalent of oxide of lead and one equivalent (or thereabouts) of carbonic acid, constituting what is called in chemical language, carbonate of lead. Now, there is no reason to conclude that carbonate of lead is the only compound of lead valuable as a paint, and still less that it should be the best compound of lead for that purpose. In point of fact it is not so, for the newly-discovered oxichloride in most, if not in all respects, is far superior; its colour is brilliantly white, and in a number of cases it has been tried against the best white lead that could be obtained, and after a period of upwards of two years, it has been found to retain its white colour considerably better than the lead against which it was tried. But the chief and by far the most important advantage it possesses is its remarkable and very decided superiority of body, by which term the power of covering surface well and extensively is understood among painters. The attention of the discoverer was at a very early period drawn to this circumstance, and since that time the Washington Chemical Company have had abundant opportunities of placing its superiority in this important particular beyond all doubt. They have themselves performed a number of experiments, and have also caused a number of experiments to be performed, in the large way, by various practical men, to ascertain accurately its covering power as compared with the best white lead, and they now state the proportions to be as 60 to 100—that is, 60 lbs. of oxichloride paint will cover as much surface as 100 lbs. of the best white lead, the saving of cost being in the same proportion; besides this, the coating is thicker and more protective, both in and out of doors, as the oxichloride dries into a hard tenacious layer, more like an enamel than paint. In using the oxichloride, no difference in the materials with which it is mixed is required, oil and turpentine being employed as usual both for work technically called flatting and for work intended to be varnished. For the use of paper stainers and leather dressers, the oxichloride is found to be peculiarly suitable. The Washington Chemical Company strongly recommend this newly-discovered substance to the notice of consumers, both on account of its economy and its intrinsic good qualities as a paint. 102

AGENTS.
LONDON—Mr. Richard Cooke, 7, Sise-lane.
Messrs. Blundell, Spence, and Co., 9, Upper Thames-street.
LIVERPOOL—Messrs. Johnson and McGowan.
MANCHESTER—Mr. James Douglas.
LEEDS—Messrs. T. and E. G. Jepson.
SUNDERLAND—Mr. John Young.
DEVONSHIRE AND CORNWALL—Mr. Richd. Penrose, Tavistock & Plymouth.
EDINBURGH AND EAST COAST OF SCOTLAND—Mr. William Bailey, jun., Greenside-place, Edinburgh.
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SAFE GUIDE TO THE INVESTMENT OF MONEY. New and Improved Edition, with important Additions, including Mines, Railways, &c.
Just published, in 8vo., price 10s. 6d. in cloth, or 11s. 6d. post free, 103
A TREATISE ON INVESTMENTS:
Being a Popular Exposition of the Advantages and Disadvantages of each kind o Investment, and of the Liability to Depreciation and Loss. By ROBERT ARTHUR WARD, solicitor, Maidenhead, Berkshire.
"Will be found exceedingly useful to the professional man, as well as a standard work of information to the capitalist and speculator."—Mining Journal.
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Effingham Wilson, publisher, 11, Royal Exchange; and Simpkin and Co., London.

Just published, price 6d., 104
THE PROGRESS OF MINING IN 1852, by J. Y. WATSON, F.G.S.
To which is added, A STATISTICAL ACCOUNT OF THE MINING INTEREST, by W. H. CUELL.—To be had at the *Mining Journal* office, 26, Fleet-st. London.

NEW PATENT ACT, 1852.—Mr. CAMPIN, having advocated Patent Law Reform before the Government and Legislature, and in the pages of the *Mining Journal*, &c., is now READY to ADVISE and ASSIST INVENTORS in OBTAINING PATENTS, &c., under the NEW ACT. 105
The Circular of Information, gratis, on application to the Patent Office and Designs' Registry, 156, Strand.

CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY. ADVANTAGES. 106
EXTENSION of LIMITS of RESIDENCE.—The assured may reside in most parts of the world without extra charge, and in all parts by payment of a small extra premium
MUTUAL SYSTEM WITHOUT THE RISK OF PARTNERSHIP.
The small share of profit divisible in future among the shareholders being now provided for, without intrenching on the amount made by the regular business, the assured will hereafter derive all the benefits obtainable from a Mutual Office, with, at the same time, complete freedom from liability, secured by means of an ample proprietary capital—thus combining in the same office all the advantages of both systems.
The assurance fund already invested amounts to £850,000, and the income exceeds £136,000 per annum.
CREDIT SYSTEM.—On policies for the whole of life, one half of the annual premiums for the first five years may remain on credit, and may either continue as a debt on the policy, or may be paid off at any time.
LOANS.—Loans are advanced on policies which have been in existence five years and upwards, to the extent of nine-tenths of their value.
BONUSES.—FIVE BONUSES have been declared; at the last in January, 1852, the sum of £131,125 was added to the policies, producing a bonus varying with the different ages from 24½ to 55 per cent. on the premiums paid during the five years.
PARTICIPATION IN PROFITS.—Policies participate in the profits in proportion to the number and amount of the premiums paid between every division, so that if only one year's premium be received prior to the books being closed for any division, the policy on which it was paid will obtain its due share. The books close for the next division on 30th June, 1856, therefore those who effect policies before the 30th June next will be entitled to one year's additional share of profits over later assurers.
APPLICATION OF BONUSES.—The next and future bonuses may be either received in cash, or applied at the option of the assured in any other way.
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PROMPT SETTLEMENT OF CLAIMS.—Claims paid 30 days after proof of death, and all policies are indisputable, except in cases of fraud.
INVALID LIVES may be assured at rates proportioned to the increased risk.
POLICIES are granted on the lives of persons in any station, and of every age, and for any sum on one life from £50 to £10,000.
PREMIUMS may be paid yearly, half yearly, or quarterly, but if a payment be omitted from any cause, the policy can be revived, within 14 months.
The accounts and balance sheets are at all times open to the inspection of the assured, or of persons desirous to assure.
A copy of the last report, with a prospectus and form of proposal, can be obtained of any of the society's agents, or will be forwarded free by addressing a line to
GEORGE H. PINCKARD, Resident Secretary,
99, Great Russell-street, Bloomsbury, London.

ED. J. DENT has REMOVED from 82 to 61, Strand (being 21 doors nearer to Charing-cross, and directly opposite Bedford-street), and solicits an INSPECTION of his extensive STOCK of CHRONOMETERS, WATCHES, and CLOCKS, as above; also at No. 33, COCKSPUR-STREET, and No. 34, ROYAL EXCHANGE (Clock Tower area). 107

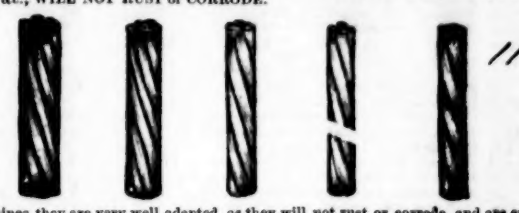
KERR AND STRANG, PERFUMERS AND WIG MAKERS, 124, LEADENHALL STREET, LONDON, respectfully inform the nobility and public, that they have invented and brought to the greatest perfection the following articles, besides numerous others:—Their VENTILATING NATURAL CURL; LADIES' and GENTLEMEN'S PERUKES, either crops or full dress, with partings and crowns so natural as to defy detection, and with or without their improved metallic springs; VENTILATING FRONTS, BANDEAUX BORDERS, NATTES, BANDS A LA REINE, &c.; also, their INSTANTANEOUS LIQUID HAIR DYE, the only dye that really answers for all colours, and never fades nor acquires that unnatural red or purple tint common to all other dyes; it is permanent, free from smell, and perfectly harmless. Any lady or gentleman, sceptical of its effects in dyeing any shade of colour, can have it applied, free of any charge, at Kerr and Strang's, 124, Leadenhall-street.—Sold wholesale and retail, in cases at 7s. 6d., 15s., and 20s.; samples 3s. 6d., sent to all parts on receipt of post-office order or stamps. 108

MESSRS. ALLSOPP AND SONS' PALE OR BITTER ALES, have been unquestionably vouched by the most eminent scientific and medical men of the day, to be "a very agreeable and efficient tonic, as a general beverage both for the invalid and the robust; and as tending, from the pure and wholesome nature of the ingredients employed, the moderate proportion of alcohol present, and the very considerable quantity of aromatic anodyne bitter derived from hops alone, which they contain, to preserve the tone and vigour of the stomach, and to conduce to the restoration of that organ when in a state of weakness, debility, or irritability."
In all cases in which malt liquors are suitable, none meet the desired effect more certainly, none are prescribed with more confidence by the faculty. "The careful manner in which the fermentation is conducted, causes them to assimilate to foreign wines more than the ordinary ales of this country; and on this account they do not occasion that nasidity of stomach created by the less perfectly fermented ales." "These Bitter Beers differ from all other preparations of malt, in containing a smaller amount of extractive matter, thus being less viscid and saccharine, and, consequently, more easy of digestion. They resemble, indeed, from their lightness, a WINE OF MALT rather than an ordinary fermented infusion; and it is very satisfactory to find that a beverage of such general consumption is entirely free from every kind of impurity." 109
ALLSOPP'S PALE OR BITTER ALE may be obtained in casks of 18 gallons and upwards, from the Brewery, Burton-on-Trent; and from the under-mentioned branch establishments:—London, at 61, King William-street, City; Liverpool, at Cook-street; Manchester, at Ducie-place; Dudley, at Burnt Tree; Glasgow, at 115, St. Vincent-street; Dublin, at Ulster Chambers Dame-street; Birmingham, at Market Hall; at either of which places a list of respectable parties who supply the beer in bottles (and also in casks at the same prices as from the brewery), may at any time be seen.

HOOPING-COUGH, ASTHMA, SORE THROATS, and COUGHS, IMMEDIATELY CURED by CROSTHWAITE'S OCCULT LOZENGES.—They are perfectly innocent, being free from narcotics; one to three boxes cures the hooping-cough. Directions are enclosed, with the method of preparing them for infants.—Sold by Barclay's, 95, Farringdon-street; Edwards, 67, and Newberry, 45, St. Paul's Church-yard; Sutton, Bow Church-yard; Prout, 229, Strand; Johnston, 68, Cornhill; Sanger, 150, and Hannay, 63, Oxford-street; and by all medicine vendors throughout the kingdom, in boxes 2s. 6d. each. 110

KUPER'S PATENT IRE ROPES.

MESSRS. F. AND HENRY J. MORTON, GALVANIZED AND CORRUGATED IRON ROOFING AND STRAND FENCING WORKS, 9½, ALBION STREET, LEEDS, SOLE AGENTS for KUPER'S PATENT WIRE ROPES, for mines, railways, inclines, &c. These ropes are now most extensively used throughout the whole of the mining districts of this kingdom; and reference can be given to the largest proprietors, as to their superiority over all other ropes. These ropes are made by improved machinery. All ropes sent CARRIAGE PAID.
PATENT GALVANIZED TWISTED SIGNAL CORD, for the use of mines, railways, &c., WILL NOT RUST or CORRODE. 111



For mines they are very well adapted, as they will not rust or corrode, and are exceedingly strong. Prices, 15s., 18s., 19s. 6d., & 21s. per 100 yds., according to strength.
PATENT HAIR BOILER FELT, for saving fuel, and ASPHALTED ROOFING FELT, 1d. per foot, supplied.
Apply for prices, &c., at the manufactory, 9½, Albion-street, Leeds.

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PATENT ROOFING FELT, for roofing cottages, stores, &c. Price 1d. per square foot; very light and portable roofing. Thou sands of yards are now being taken out to Australia by emigrants. Delivered CARRIAGE FREE.—Apply at the manufactory, 9½, Albion-street, Leeds.

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IMPROVED LIFTING JACKS, 114

IMPROVED RATCHET JACK. HALEY'S PATENT LIFTING JACK.

MANUFACTURED BY
W. AND J. GALLOWAY,
PATENT RIVET WORKS,
MANCHESTER.

The attention of parties who employ
Lifting Jacks,
Is respectfully requested to the superiority of those annexed, over those hitherto in use.

WATCHES! WATCHES! WATCHES!
SAVE FIFTY PER CENT. BY PURCHASING YOUR WATCHES DIRECT FROM THE MANUFACTURER, AT THE WHOLESALE TRADE PRICE.

GOLD WATCHES, extra jewelled, with all the recent improvements £3 15
Ditto, with three-quarter plate movement, and stouter cases 4 10
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And every other description of watch in the same proportion. 115

A written warranty for accurate performance is given with every watch, and a 12 months' trial allowed. Handsome morocco cases for same, 2s. extra.
Emigrants supplied with watches suitable for Australia. Merchants, captains, and the trade supplied in any quantities, on very favourable terms.
GENTLEMEN'S FINE GOLD ALBERT CHAINS, £1 10s.
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Sent carefully packed, post free, and registered, on receipt of Post-office or bankers' order, for 1s. extra, payable to
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GREGORY'S HOTEL, No. 29, CHEAPSIDE, LONDON.—Bed, 1s. 6d.; Breakfast, 1s. 6d.; Servants, 9d. per day. Omnibuses to and from all the Railway Stations set down at the door.—Gentlemen connected with the MINING INTEREST are particularly invited to patronise this Hotel. 116
WELLINGTON GREGORY, Proprietor.

UNDER THE PATRONAGE OF THE QUEEN, AND THE PRINCIPAL NOBILITY.

ROPER'S ROYAL BATH PLASTERS supersede the use of inward medicines for Coughs, Asthma, Hoarseness, Indigestion, Palpitation of the Heart, Croup, Hooping-cough, Influenza, Chronic Strains, Bruises, Lumbago, Spinal and Rheumatic Affections, Diseases of the Chest, and Local Pains. These truly invaluable plasters are compounded on medico-chemical principles, from British herbs, and gums and balsams of Eastern climes; have the words "ROPER'S ROYAL BATH PLASTERS" engraved on the Government stamp; and signed on the back "ROBT ROPER."—Prepared only by Robert Roper and Son, chemists, Sheffield, who poss ss a large number of testimonials, from highly respectable parties, of cures effected in numerous varieties of the above diseases. Full sized plasters, 1s. 1½d., for children, 9½d. each; or direct by post on receipt of 1s. 4d., or 1s. each; and in tins for the use of hospitals, unions, family use, and charitable purposes, at 4s. 6d., 2?s., and 33 . Sold by most medicine vendors. 117
Beware of Imitations.—Ask for ROPER'S PLASTER.

CURE OF ASTHMATIC COUGHS BY Dr. LOCOCK'S PULMONIC WAFERS.—From Mr. Ince Gamis, Medicine Warehouse, opposite Stukey's Bank, Yeovil,—"A lady purchased a 2s. 9d. box, and observed that she had suffered for years from an asthmatic cough, and spent many pounds on other medicines to no purpose. Weeks after the same lady called again, when she had been completely cured by them, merely one 2s. 9d. box. Other instances are from time to time occuring, which prove the value of these Wafers above other medicines for pulmonary diseases, coughs, colds, &c.—Ince Gamis."—To singers and public speakers they are invaluable for clearing and strengthening the voice. They have a pleasant taste. Price 1s. 1½d., 2s. 9d., and 11s. per box. Sold by all druggists. Beware of counterfeits. 118

KEATING'S COUGH LOZENGES.—The unprecedented celebrity which these LOZENGES have attained throughout the Mining Districts of England and Scotland, as the only UNFAILING REMEDY for the COUGHS and COLDS to which persons engaged in such pursuits are peculiarly liable, fully justifies the proprietor in introducing them to the notice of those who are about to EMIGRATE to the GOLD FIELDS.
It is well known that one of the greatest drawbacks to success in the gold districts is, that failure of health and strength consequent upon the coughs and colds which are produced by the necessary exposure and wet which attends the labourer in his search for the treasure; a remedy, therefore, which will preserve him from these evils is in reality of more value than the richest mine.—Without health, there can be no wealth,—and this important truth should induce every sensible man to provide himself with a stock of KEATING'S COUGH LOZENGES before proceeding to the Diggings.
Prepared and sold in Boxes, 1s. 1½d., and Tins, 2s. 9d., 4s. 6d., and 10s. 6d. each, by Thomas Keating, Chemist, &c., No. 79, St. Paul's Church-yard, London. Retail by all Druggists and Patent Medicine Venders in the Kingdom.
N.B.—To prevent spurious imitations, please to observe that the words "Keating's Cough Lozenges" are engraved on the Government stamp of each box.

IMPORTANT TESTIMONIAL.
Melbourne, Port Philip, May 16th, 1848.—Dear Sir: I duly received per *Maitland* the case of lozenges, and have much pleasure in saying that they have met with a ready sale; therefore, send me now the value of £10, that is, double the last sent, packed in two cases with tins, &c. as before. The lozenges require only to be tried, and I am sure the sale will be immense. I am not an advocate for proprietary medicines in the general way, but assure you that the lozenges have done so much good in almost every case in which we have recommended them, that I believe them better adapted to this climate than anything else we have seen used.
Believe me, dear Sir, yours faithfully,
Mr. Thomas Keating. DANL. R. LONG. 119

AUSTRALIA.—All persons EMIGRATING to AUSTRALIA are strongly recommended to provide themselves with MORISON'S VEGETABLE UNIVERSAL MEDICINES, which may be obtained from any of the duly authorised agents to the British College of Health, New-road, London. The medicine can also be had in Australia of the following agents:—Melbourne, Mr. Charlwood; Hobart Town, Mr. Drury.—N.B. Beware of counterfeits sold by chemists and druggists. 120

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5120	Alfred Consols (copper), Phillack	£2 16s	£16¾	16½ ¾	£5 16 0	£0 8 0—Jan., 1853.
1248	Allt-y-crib (silver-lead), Talybont, Wales	4	2		0 7 6	0 5 0—Jan., 1851.
2000	Anglesea Coal Company	4	4½		0 10 0	0 2 0—Nov., 1852.
1024	Balleswidden (tin), St. Just	11¼	10		10 14 0	0 5 0—Jan., 1853.
4000	Bedford United (copper), Tavistock	2¾	9⅝		4 2 0	0 4 0—Dec., 1852.
5000	Black Craig (lead), Kirkcudbrightshire	5	4⅛	5	0 2 6	0 2 6—Nov. 1851.
64	Boscaswell Downs (tin), St. Just	—	100		750 0 0	— —May, 1849.
100	Botallack (tin, copper), St. Just	182½	600	600	470 10 0	8 0 0—Nov., 1852.
1600	Bryntail, Llanidloes, Montgomeryshire	3⅛	4⅛		0 5 0	0 5 0—June, 1851.
5000	Callington (lead, copper), Callington	£7 12s.	2⅝	3⅛	1 8 0	0 4 0—Sept. 1847.
1000	Carn Brea (copper, tin), Illogan	15	90	84 86	214 0 0	2 0 0—Jan., 1853.
128	Comford (copper), Gwennap, Cornwall	75	50	60	—	—
256	Condurrow (copper, tin), Camborne	20	112½	112½	25 0	3 0 0—Dec., 1852.
2510	Cook's Kitchen (copper, tin), Illogan	15⅛	3	3¼ ½	—	—
128	Cwmystwith (lead), Cardiganshire	60	210		15 0 0	5 0 0—Dec., 1852.
1024	Devon Great Consols (copper), Tavistock	1	430	420 430	304 0 0	9 10 0—Jan., 1853.
672	Ding-Dong (tin), Gulval	5	6		55 0 0	— —1850.
180	Dolcoath (copper, tin), Camborne	257¾	56	60	855 14 0	— —1847.
2560	Drake Walls (tin, copper), Calstock	7¼	6	4½ 5	0 5 0	— —Jan. 1852.
300	East Darren (lead), Cardiganshire	28	95	105 110	4 0 0	2 0 0—Jan., 1853.
128	East Pool (tin, copper), Pool, Illogan	24¼	165	140 145	233 0 0	— —1843.
94	East Wheal Crofty (copper), Illogan	125	65		840 0 0	—
128	East Wheal Rose (silver-lead), Newlyn	50	240	220	2245 0 0	10 0 0—March, 1852.
300	Fenton Pottery Coal and Iron	6	7½		1 4 0	0 12 0—Aug. 1852.
494	Fowey Consols (copper), Tywardreath	40	30		—	—
3715	General Mining Co. for Ireland (cop., lead)	1⅝	3		0 17 5	0 1 8—Dec., 1852.
2000	Goginan (lead), Cardiganshire, Wales	8	20		22 0 0	— —
1024	Gonamena (copper), St. Cleer	12¼	10⅛	11	0 7 6	0 7 6—Dec., 1852.
96	Great Consols (copper), Gwennap	1000	200		353 6 8	— —Jan. 1851.
50000	Great Onslow Consols, Camelford	1½	—		0 2 0	0 2 0—June, 1852.
13750	Great Polgooth (tin), St. Austell	3	4⅝	4½ ⅝	0 10 0	0 4 0—Oct., 1852.
119	Great Work (tin), Germoe	100	175		149 0 0	7 10 0—Nov., 1852.
1024	Herodsfoot (lead), near Liskeard	8½	11½	11	0 7 6	0 2 6—Aug. 1851.
1000	Holmbush (lead, copper), Callington	24	21		25 0 0	— —Feb. 1844.
2000	Holyford (copper), near Tipperary	11	7		3 5 0	0 5 0—Sept., 1852.
76	Jamaica (lead), Mold, Flintshire	3l. 13s. 6d.	—		224 0 0	— —
786	Kirkcudbrightshire (lead), Kirkcudbright	9⅜	4¼		0 15 0	0 10 0—Dec., 1852.
1000	Lewis (tin, copper), St. Erth	17	14	10	2 0 0	0 10 0—Aug. 1851.
160	Levant (copper, tin), St. Just	2½	160	155	1036 0 0	2 0 0—Feb. 1852.
100	Lisburne (lead), Cardiganshire, Wales	75	900		745 0 0	45 0 0—Dec., 1852.
5000	Merllyn (lead), Flint	2¾	5	4¾ 5	1 2 0	0 4 0—Oct., 1852.
100	Milwr (lead), Flint	150	175		10 0 0	10 0 0—Oct., 1851
20000	Mining Co. of Ireland (copper, lead, coal)	7	13¾	13¾ x d	8 1 0	0 7 0—Dec., 1852.
200	North Pool (copper, tin), Pool	22½	290	320 330	263 0 0	7 10 0—Dec., 1852.
140	North Roskear (copper), Camborne	10	180		240 10 0	3 0 0—Jan., 1853.
6000	North Wheal Basset (copper, tin), Illogan	—	10¾	11	1 6 0	0 5 0—Nov., 1852.
6400	Par Consols (copper), St. Blazey	1½	18	18¾ 19½	22 1 0	0 16 0—Oct., 1852.
1160	Perran St. George (cop., tin), Perranzabuloe	21½	40		1 15 0	0 10 0—June, 1851.
200	Phœnix (copper, tin), Linkinghorne	30	750		240 0 0	10 0 0—Dec., 1852.
1000	Polberro (tin), St. Agnes	15	13		4 5 0	1 0 0—Dec., 1852.
560	Providence Mines (tin), Uny Lelant	20⅜	22½		18 14 6	0 10 0—Nov. 1851.
1948	Rix Hill (tin), Tavistock	3½	3	2⅝ ¾	0 8 0	0 4 0—Jan., 1853.
5040	Rorrington (lead), Snailbeach, Shrewsbury.	6s.	1		0 10 8	— —July, 1852.
256	South Caradon (copper), St. Cleer	2½	200	200	267 10 0	2 10 0—Jan., 1853.
9600	South Tamar (silver-lead), Beerferris	1⅜	7		0 10 0	0 5 0—Oct., 1852.
256	South Tolgus (copper), Redruth, Cornwall	16	215	225 250	56 0 0	5 0 0—Dec., 1852.
248	South Wheal Frances (copper), Illogan	37⅞	182	180 185	211 15 0	6 0 0—Jan., 1853.
1024	Spearne Consols (tin), St. Just, Cornwall	1¼	10½	10½	7 11 0	0 10 0—Dec., 1852.
1024	St. Aubyn and Grylls (copper, tin), Breage	3	7½		0 17 6	0 7 6—April, 1852.
94	St. Ives Consols (tin), St. Ives	80	125		875 0 0	4 0 0—Aug., 1852.
1000	Stray Park and Camborne Vean (copper)	16	8½		11 10 0	—
9600	Tamar Consols (silver-lead), Beeralston	4½	6¼	6¼ 5½	2 11 0	0 6 0—July, 1849.
6000	Tincroft (copper, tin), near Pool, Illogan	7	12½	11	6 8 0	0 10 6—Aug. 1852.
512	Trehane (silver-lead), Menheniot	2⅜	22		14 12 6	0 5 0—Jan., 1852.
5000	Treleigh Consols (copper), Redruth	6	2		1 3 0	0 5 0—Oct. 1847.
96	Tresavean (copper), Gwennap, Cornwall	32½	140		4680 15 0	— —1843.
120	Trethellan (copper), Gwennap, Cornwall	5	14		102 10 0	— —April, 1851.
120	Treviskey and Barrier (copper), Gwennap	130	85	90	295 10 0	2 10 0—Jan., 1853.
100	Trumpet Consols (tin), near Helston	95	135		25 0 0	5 0 0—Dec., 1852.
400	United Mines (copper), Gwennap	40	375	370	23 15 0	10 0 0—Jan., 1853.
1024	Wellington (copper, tin), Perranuthnoe	7¾	8		2 2 6	0 5 0—March, 1851.
256	West Caradon (copper), Liskeard	20	305	300	198 5 0	6 0 0—Dec., 1852.
1024	West Providence (tin), St. Erth	5	55	55	15 10 0	2 10 0—Dec., 1852.
256	Wheal Basset (copper), Illogan	10¼	600	575	370 0 0	20 0 0—Feb., 1853.
256	Wheal Brewer (copper), Gwennap	4	22½		5 0 0	—
256	Wheal Buller (copper), Redruth	5	1100	1200 1250	242 10 0	22 10 0—Jan., 1853.
250	Wheal Clifford (copper), Gwennap	—	150		1 8 2	1 8 2—Dec., 1852.
4180	Wheal Exmouth and Adams United	4½	7¾	7¾ ⅝	0 7 6	0 2 6—Dec., 1852.
100	Wheal Friendly (tin), St. Agnes	70	10		5 0 0	5 0 0—1850.
128	Wheal Friendship (copper), Devon	120	125	112½	2349 10 0	10 0 0—Jan., 1853.
5000	Wheal Golden (sil.-lead), Perranzabuloe	3	5	3 ½	1 5 0	0 5 0—Sept., 1852.
256	Wheal Jane (silver-lead), Kea	nil.	21		1 0 0	1 0 0—Oct., 1852.
430	Wheal Lovel (tin), Wendron	33	60	48	17 10 0	2 10 0—Oct., 1852.
112	Wheal Margaret (tin), Uny Lelant	79	117		196 0 0	2 10 0—May, 1852.
512	Wheal Mary Ann (lead), Menheniot	5¼	35	30 36	23 5 0	1 0 0—Sept., 1852.
80	Wheal Owles, St. Just, Cornwall	70	220		72 13 0	12 1 3—Nov., 1852.
240	Wheal Reeth (tin), Uny Lelant	20¼	52½		40 10 0	3 0 0—Sept., 1852.
198	Wheal Seton (tin, copper), Camborne	107	200	190	227 10 0	4 0 0—Dec., 1852.
520	Wheal Trelawny (silver-lead), Liskeard	8⅜	58	62	29 10 0	3 0 0—Jan., 1853.
1024	Wheal Tremayne (tin, copper), Gwinear	9⅝	28	26 27	9 5 0	0 10 0—Dec., 1852.
5000	Wicklow (copper), Wicklow	5	46	47	18 13 0	1 5 0—Aug., 1852.

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5000	Alten Mining Company (copper), Norway	£14½	4¾		3 10 0	0 10 0—Dec., 1852.
72000	Baden, Grand Duchy of	1	1¼	1 1¼	0 1 0	0 1 0—Nov., 1852.
10000	Brazilian Imperial (gold), Brazil	25	3½	4½ 5	34 17 6	— —Dec. 1844.
2464	Burra Burra (copper), South Australia	5	171		120 0 0	5 0 0—Sept. 1, 1852.
12000	Cobre Copper Company (copper), Cuba	40	42	42½	56 12 0	3 0 0—Jan., 1853.
10000	Copiapo Mining Company (copper), Chili	14	7		3 18 0	0 5 0—Oct. 1851.
20000	General Min. Assoc. (iron, coal), Nova Scotia	20	16½	15¾	7 10 0	0 5 0—June, 1852.
9000	Linares (lead), Pozo Ancho, Spain	3	10	10½	0 3 0	0 3 0—Sept., 1852.
2700	Marmato (gold), Columbia	2½	12		4 0 0	1 0 0—Nov. 1852.
100000	Mariquita and New Granada	1	1	1	0 1 0	0 1 0—Jan., 1853.
20000	Mexican and South American (cop.), Mexico	9	4¾	4¾	4 10 0	0 5 0—Jan., 1853.
7000	Royal Santiago (copper), Cuba	12	7½	6½ 7	33 4 0	— —Jan., 1853.
11000	St. John del Rey (gold), Brazil	15	30	30	19 17 6	2 0 0—Nov., 1852.
43174	United Mexican (silver), Mexico Av.	28¼	6	6¼ ⅛	1 16 6	0 4 0—Feb. 1853.

MINES WHICH HAVE SOLD ORES.

Shares.	Mines.	Paid.	Last Price.	Present.
6000	Ashford Consols (sil.-lead, cop.)	1	1¼	1¼ ⅜
4000	Altarnun Con. (tin, cop.), Altar.	½	½	
4000	Augusta Con. (cop.) Bridestowe	1⅛	⅜	
940	Balnoon Con. (tin), Uny Lelant	—	10	10 13
5000	Bat Holes, Worthen, Salop	1l. 3s. 6d.	1¼	
508	Bell and Lanarth, Gwennap	9¾	10	
10000	Birch Tor and Vitifer, Lydford	2	2	
6000	Bishopstone, Glamorganshire	1¾	1½	1 ¼
955	Bodmin Con. (lead), Wadebridge	10	7	
6144	Bodmin West Downs (tin, cop.)	1	1	
1024	Bodmin W. Mary (cop.), Bodmin	11½	3	
120	Bollowall and Nanpean (tin)	20	18	
4096	Boringdon Consols, Plympton	2¾	3¼	3¼ ⅜
240	Boscean (tin), St. Just	20½	25	23 25
2400	Bosorn (tin), St. Just	1	3	
5250	Bottle Hill (copper), Plympton	2	2	
14000	Braich Goch Slate Quarries	½	½	
4000	Bronfloyd (lead), Wales	8s. 6d.	1⅛	1¼ ½
2190	Bryn-Arian (lead), Cardigansh.	3¼	½	
—	Budnick Consols (tin), Perran	6½	8	
1500	Busparvo (tin, cop.), Gwinear	1	1	
2000	Bwlch (sil.-lead), Cardiganshire	4	3	
7000	Cae-Gynon, Cardiganshire	1	3	
1024	Caerphilly & Carfnnon, S. Wales	3	4	
3000	Cally (cop., lead), Kirkcudbright	1	1¼	
4000	Calstock Consols (copper)	4¼	1⅝	2
1024	Caradon Consols, St. Cleer	1	15	15 17
2000	Carbona (tin, copper), Crowan	5½	5	
2048	Carnyorth (tin), St. Just	1¾	1¾	
3000	Carthew (cop., lead), Wadebridge	6¾	4	
1056	Carvannall (copper), Gwennap	5½	6	
200	Cefn Brwyno (lead), Cardigansh.	33	92½	100 105
9000	Charlestown United, Cornwall	18s.	3	
1024	Clijah & Wentworth (tin, cop.)	4	5½	5½
2000	Coed Mawr Pool (lead), Llanrwst	10	10	
800	Court Grange, Cardiganshire	10	10	
211	Craddock Moor (cop.), St Cleer	34	50	
600	Craig-y-Mwyn (lead), Llanrhiadr	8⅝	7	
256	Crane and Bejawsa, Camborne	25½	17½	
612	Creeg Braws (copper), Cornwall	13⅛	20	
1000	Crookhaven (copper), Cork	10	20	
9000	Cubert (silver-lead), Cornwall	1⅛	1¾	2
10000	Cwm Daren (lead), Cardigansh.	½	⅝	¾ ⅞
6000	Cwmdyle Rock & Green Lake	3	5	
4000	Ditto Ditto	2	3½	
1000	Cwm Erfin (lead), Cardigansh.	8	2	
2000	Cyfannedd Fawr, Lanegryn	¼	1	
3000	Dalrhiew (cop., lead), Brecon	1½	4	
1000	Darren (sil.-lead) Cardiganshire	4½	3⅝	
7200	Derwent (sil.-lead), Durham	12	4	
3907	Devon and Courtenay (copper)	3¼	1	
1024	Devon & Cornwall United (cop.)	7½	4	
1000	Devon Great Tincroft (tin)	¼	2	
6000	Devon Kapunda (cop. & sil.-lead)	3½	3½	
4000	Dolfrwynog (cop.), Merioneth	¼	1	
128	Drift Moor (tin), Sancreed	4	4	
4000	Duke of Cornwall (tin), Lydford	1	1	
3000	Dyfngwm (lead), Wales	11¼	12	
4096	East Alfred Consols (lead, cop.)	¾	¾	
1306	East Balleswidden, Sancreed	2⅝	2	1¾ 2
256	East Basset (copper), Redruth	18	14	
2500	East Birch Tor (tin), Devon	3	3	
1948	East Crowndale (cop.), Tavistock	6	4	
1100	East Frongoch (lead)	1½	5	
4000	East Gunnis Lake Junc. (cop.)	1¼	2	
1024	East Halamanning (tin)	1	4	
512	East Seton & W. Maude, Redruth	10½	5	
9000	East Tamar (sil.-lead), Beerferris	1⅜	2	1⅝
256	East Tolgus (copper), Redruth	10	37	
2048	East Wheal George, Walkhamp.	2	4	
512	East Wheal Leisure, Perran	15	5	
1024	East Wheal Margaret (tin, cop.)	4⅝	6¾	10½ 11
564	Ecton Mountain, Derbyshire	10	12½	
536	Ecton Mountain (lead, copper)	5	5	
1280	Esgair Lee, Llanfihangel-y-Croy	7	3	
32	Four Dargue (lead) Cumberland	12	35	
2000	Gallt-y-Maen, Merioneth	2	2	
5000	Garreg (lead), Flint	1¾	1⅝	
—	Geifron (copper) Wales	—	9	
2500	Georgia Consols (tin), St. Ives	5½	5	
243	Grambler & St. Aubyn (copper)	91½	25	
800	Great Beam (tin), St. Austell	18¾	24	
6750	Great Bryn Consols (cop., tin)	1⅛	1¼	
4000	Great Cowarch, Merioneth	3¼	3	
1024	Great Wheal Alfred, Phillack	22⅞	41	
5120	Great Wheal Baddern (tin)	2½	2¼	
1024	Great Wheal Leisure	2⅛	¼	
1026	Gustavus Mines, Camborne	8l. 5s. 11d.	2	
512	Halamanning and Croft Gothal	75	110	100
512	Hawke's Point, Uny Lelant	9⅝	3	
1500	Hennock (silver-lead) Hennock	6¼	10	9
6000	Hingston Down Cons. (copper)	2⅞	5¼	
20000	Kenmare and West of Ireland	1	1⅜	1⅛ ⅜
873	Keswick (lead), Portinscale	17	4	
3300	Kilbricken (silver-lead), Clare	4⅜	5⅞	4¾ 5
1698	Lamherooe Wheal Maria (cop.)	15	1⅜	
3000	Lamin	3¼	3½	
252	Lanarth Con. (cop.), Gwennap	4	4	
256	Leeds and St. Aubyn (tin, cop.)	5	5	
12000	Leeds Town (tin, cop.), Crowan	2½	2¾	2⅝
256	Lelant Consols (tin), Uny Lelant	64	14	
13000	Llynmalees (lead), Cardigansh.	1¼	1	
5056	Lydford Consols (lead)	1l. 6s.	¾	
6000	Marke Valley (copper), Caradon	10	1½	
1024	Melin Llyn-y-Pair, Merioneth	2¼	6	
5000	Mendip Hills (lead), near Bristol	2¾	7	
246	Mengearne and Tregunstis (tin)	8	8	
4096	Middleton (lead), Snailbeach	4s.	¼	
1024	Mill Pool (tin, cop.), St. Hilary	5	5⅜	
2000	Molland (cop.), South Moulton	4½	3⅜	
1024	Mount Tiack (tin, cop.), Lelant	1	1½	
320	Nansegollan, (tin), Camborne	14½	12	
3000	Nant-y-Car (cop.), nr. Rhayader	3	7	
1024	North Abram (copper), Crowan.	½	1	
1024	North Buller (copper), Redruth	8⅜	10¼	
6000	North Damsel (cop.), Gwennap	1	2	1⅞ 2
2000	North Downs (copper), Redruth	1	2	
2500	North Frances (cop.), Camborne	1	1⅛	
2000	North Levant (tin, cop.) St. Just	1¼	2	
2000	North Tamar (silver-lead, cop.)	2¾	1	
1200	N.W. Buller, or Gt. South Tolgus	7½	8	
1024	North Wh. Robert, Walkampton	4⅜	7½	7½
3000	N. Wh. Unity (cop., tin), Gwin.	1⅛	3	
2000	Ockment (cop., sil.-lead), Devon	1⅛	1¾	
2048	Okel Tor (lead), Calstock	10s.	1	
256	Old Wheal Basset, Illogan	2	2	
2500	Orsedd (lead), Flint	1¼	2⅝	2¾
10240	Pembroke & East Crinnis (cop.)	3¾	3½	
1500	Pencraig (lead), Carnarvon	4	1	
5000	Pendarves & St. Aubyn (tin, co.)	1	½	
1026	Pendarves Consols, Camborne	6¾	2	
5000	Penhale Consols (silver-lead)	3	—	
2048	Pentire Glaze (silver-lead)	5¼	—	
1024	Penzance Con. (tin), Sancreed	5	3	
1000	Peter Tavy & Mary Tavy (cop.)	5½	6	
2000	Polgear & Lancarrow (cop., tin)	2	1½	
3000	Porkellis United (tin), Wendron	10	10	
1024	Praed Con. (tin), Towednack	1½	⅝	
6400	Prideaux Wood, Luxillyan	1⅛	3¼	3¼
3072	Prince Albert, Perranzabuloe	2	2	
480	Raleigh, (tin, copper), Crowan	5¼	6¼	
7000	Reeth Consolidated, Towednack	4⅜	⅝	18s. 25s.
2500	Rhoswydol & Bacheiddon (lead)	11¼	15	
5000	Rocks and Treverbyn (tin)	£5 12	3⅛	
256	Rosewarne (cop., tin), Gwinear	5¼	5⅛	
5000	Round Hill, Salop	⅛	2⅛	
1024	Sidney Godolphin (cop.), Breage	5¾	5¾	
4000	Sithney Wheal Buller (tin)	1	4	5
2000	South Carn Brea (cop.), Illogan	11½	10	10
256	South Charlotte, St. Agnes	3	14½	
5000	South Crenver (copper)	3	3	4½
4196	South Friendship Wheal Ann	2⅝	2	
2000	South of Scotland	2¼	½	
300	South Speed, Uny Lelant	25	25	
280	Spearne Moor (copper), St. Just	30	30	
—	St. Blazey Consols, St. Blazey	—	—	
20000	St. Day United (tin & copper)	2	4	4 4¼
512	St. Michael Penkevil (tin)	1½	1⅛	
999	St. Minver Consols (silver-lead)	1	1	
4944	Tavy Con. (cop.), near Tavistock	28s	4¼	5¼ ⅛ ⅞
4800	Tees Side (lead), Cumberland	1¼	2	2
1600	Tokenbury Con. (cop.), St. Ives	3¾	1¼	3¾
1024	Trannack and Bosence, St. Erth	7⅝	11	
10000	Trannack United Mines (tin, co.)	1	2	
1024	Trebarvah, Perranuthnoe	2	9	
4096	Treburget United (lead) St. Teath	1¼	1½	1½
145	Tregorden, Wadebridge	25	5	
2048	Trebell Con. (tin, cop.), Lanivet	2¼	1¼	
10000	Treloggan, St. Colomb Minor	1¼	2½	
1000	Treloweth (copper), St. Erth	6½	6¼	
572	Trelyon Consols, (tin), St. Ives	6¾	9½	
2048	Trevelyan (tin, copper)	3¼	3½	
4000	Tyn-y-Worglod (slate), Carnar.	4¼	3⅜	3¾ 4
2000	Union (tin), Roche & Luxillion	½	2¼	
1000	Ditto (paid up)	1	2⅜	
1024	United Mines (cop., tin), Tavis.	15½	13	
20000	Vale of Towy (lead)	¼	2	1¾
5000	Warleggan Consols (copper)	1	⅜	
1024	West Abram (copper), Crowan.	½	2½	
1024	West Alfred (cop.), Phillack	14⅝	36	
6000	West Basset (copper), Illogan	1¾	8	8½
2560	West Crinnis, St. Austell	2	2	2
256	West Damsel (cop.), Gwennap	7¾	115	
1024	West Ding-Dong (tin), Sancreed	3½	13½	13
6400	West Fowey Con. (tin, cop.)	£6 0s. 8d.	8¼	8¼
2048	West Goginan, Cardiganshire	3⅝	1½	
1024	West Par Con. (cop.), St. Blazey	10½	10½	
6500	West Polgooth (tin), St. Ewe	1¼	¾	
186	West Roskear (cop.), Camborne	£3 9 2	5	
200	West Seton (copper), Camborne	77	120	
940	West Tolgus (copper), Illogan	14½	¾	
120	West Trethellan, Gwennap	15	11	
5000	West Wheal Alfred (cop.), Hayle	3	4	
512	West Wheal Frances, Illogan	10½	7	
4000	West Wheal Russell, Calstock	1⅛	1¼	
500	West Wheal Towan (cop., tin.)	30⅛	20	
1024	West Wheal Treasury (cop.)	£10 4 10	9	9 9½
1000	Wheal Agar (copper), Illogan	6	5	
6400	Wheal Anna (tin), St. Austell	1	2	1¼ 2
1228	Wheal Arthur (cop.), Calstock	5	25	31½
3072	Wheal Augusta (tin), St. Just	1½	1¾	
240	Wheal Bal (tin), St. Just	6½	5	
539	Wheal Carne (tin), St. Just	7⅝	7½	
1024	Wheal Carpenter (tin), Gwinear	⅝	3	
1024	Wheal Carpenter, S. Sydenham	5½	9	
1024	Wheal Chiverton (copper, tin)	£6 2 10	4½	
512	Wheal Constance (lead), Newlyn	3	15	
1024	Wheal Crebor (cop.), Tavistock	6¾	15	16½
1024	Wheal Cupid (copper), Gwennap	3	6	
4500	Wheal Elizabeth (tin), St. Ewe	½	¾	⅜
1092	Wheal Ennis (lead), St. Erme	3½	2	
1070	Wheal Enys (tin), Wendron	5	10	
764	Wheal Franco, near Tavistock	15½	11	
6000	Wheal Grenville, Camborne	3	3½	
10000	Wheal Guskus (tin, copper)	¼	1⅛	
5120	Wheal Harriett, Camborne	1	1⅜	
256	Wheal Kitty (tin), Uny Lelant	£3 8 6	7½	
5000	Wheal Kitty (tin), St. Agnes	⅛	2	
6000	Wheal Langford (cop., sil.-lead)	⅜	1⅜	1¼ 1⅜
1000	Wheal Lemon (copper), Germoe	£7 8s.	5	
6144	Wheal Maudlin, Lanlivery	1	1	
942	Wheal May (silver-lead, cop.)	4¼	3	
256	Wheal Music (copper), St. Agnes	1	1	
808	Wheal Oak (tin), near Helston	2¼	1	
3000	Wheal Penhale (lead, copper)	£3 17	1½	
128	Wheal Plenty (copper), Redruth	50	50	
256	Wheal Prudence (cop.), St. Agnes	4¾	2	
4000	Wh. Robert, Sampford Spiney	10s	⅝	¾ ⅞
2048	Wheal Robins (tin), Liskeard	1⅞	4	4 ¼
4000	Wheal Russell (cop.), Tavistock	2⅝	1½	2½ 3
5000	Wheal Ruth (tin), Shepstor	2	1	
1024	Wheal Sidney, Plympton	2⅜	5	
512	Wheal Sophia (sil.-lead), Lezant	11¼	11¼	
1024	Wheal Speedwell (copper, tin)	£7 3 3	11	
1024	Wheal Squire (copper), St. Erth	5¾	2⅝	
247	Wheal Stanley (tin)	1¾	1½	
1000	Wheal Susan, Breage & Crowan	2⅜	1	
6000	Wheal Tehidy (copper), Illogan	1½	3	3
2000	Wheal Tom, Stoke Climsland	6½	—	
4000	Wheal Treasury (copper, tin)	½	1	
512	Wheal Trefusis (cop.), Gwennap	14¾	20	
3000	Wheal Trevena (tin), Breage	2½	6	
8448	Wheal Trewane (silver-lead)	1¼	2	
267	Wheal Tryphena, Camborne	42	17	
6000	Wheal Unity (cop., tin), Gwinear	2½	2	
1024	Wheal Uny (tin, cop.), Redruth	8¼	14¾	13¾ 14¾
1024	Wheal Venton (sil.-lead), Lisk.	6l. 18s.	3	
4000	Wheal Williams (copper)	1¼	⅜	
4096	Wheal Zion (cop., lead), Calstock	1⅜	2¼	3½
6400	Whitford (lead), Flint	2s	1½	
2048	Yeoland Consols (tin, copper)	8	9	

* 2l. of the 3l. carries interest at 6 per cent. from Sept. 1st, 1851, to Jan. 25th, 1853; and 6 per cent. upon 1l. only after the 25th Jan., 1853.

MINES WHICH HAVE NOT SOLD ORES.

Shares.	Mines.	Paid.	Last Price.	Present.
500	Albion (porcelain & bleach. clay)	5¼	5¾	
2049	Anna Maria (sil.-lead), Caradon	18s 6d	1	
1024	Appledore (sil.-lead, cop.) St. Ives	4¼	1	
10000	Arundell United (cop) Ashburton	1	3	
10000	Ballyhickey, Clare	3	3	3
5000	Bargally (sil.-lead), Kirkcudbr.	21s.	¾	
3000	Beacon (tin), Roche, Cornwall	8s 6d	⅜	
251	Berrow (copper), Liskeard	3¼	1	
8000	Bicton Consols (lead), St. Ives	1	1	
64	Black Burn, Alston, Cumberland	16	20	
1800	Blaen Caylen (lead), Cardigan	⅜	1¾	2
5000	Bodeall	1⅞	—	
1000	Boiling Well (copper), Gwithian	1	1½	
6000	Bolenowe	½	4½	
20000	Boscarne, Bodmin	3	—	
18195	Britannia (gold, cop.), Devon	1l. 1s.	½	
812	Butterdon (lead), Menheniot	5½	4	
1536	Caradon Vale (cop., lead), St. Ive	£4 4s.	1	
30000	Carbery West (copper), Ireland	½	¾	½ ⅞
6000	Caradon Wood (lead), Linking.	21s. 6d	¾	
5120	Carn Valley, St. Dennis	1	2	
2048	Castle Dinas (tin), St Colomb	2¼	1¼	
6000	Cawson Hill (cop.), S. Tawton	1	2	
4527	Cefn Gwyn (sil.-lead), Cardigan	24s	14s	
1248	Christow (silver-lead)	4½	7	
1024	Churchstoke (lead), Salop	15s. 6d	1	
20000	Classadaugh (copper), Ireland	1	1½	
5000	Clive (lead), Glamorgan	1¼	5¾	5¼
1000	Cockley Beck (copper)	⅜	2	
5000	Coniston United (copper)	½	2	
15000	Connemara (silver-lead), Galway	1	1¾	
6400	Crow Hill (sil.-lead), St. Steph.	1	3¼	3¼
5000	Devon Consols North (copper)	2⅝	1	
2048	Devon Consols West (copper)	1⅝	1½	
5000	Devon United (silver-lead, cop.)	1	1¼	
1536	Duke of Cornwall (cop.) Bodmin	4	6	
10000	Dunsley Wh. Phœnix, Linking.	1	4	
6144	East Caradon (copper)	1¼	2½	
128	East Carn Brea (cop.), Redruth	4	2½	
5000	East Black Craig, Kirkcudbright	⅛	½	
1024	East Buller (cop.), near Redruth	4	6¾	
1024	East Ding Dong (tin)	½	1½	
6000	East Kitt Hill (cop., tin), Cornw.	1	2	
10000	East Polgooth (tin), St. Austell	1	1¾	
128	East Tremayne (tin), Gwinear	5	12	
1000	East Trescoll	1	1¾	
1024	East Uny Consols	—	2	
1024	East Wheal Fortune, St. Hilary	2	2	
2048	East Wheal Josiah, Tavistock	1⅝	¾	
1000	East Wheal Reeth, Lelant	3⅝	1⅛	
4000	East Wheal Russell, Tavistock	1¾	10	10⅛
10000	East Wheal Vor (tin), Helston	1l 1s	1¼	
1000	East White Grit (lead), Salop	10s. 6d.	2	
1021½	Exmoor Eliza (cop.), S. Molton	5⅜	6⅛	
5000	Fat-work & Wh. Virtue, St. Col.	1	3¼	3
1024	Freidd Llwyd Mines, Wales	1¼	3	
—	Fursdon Manor (cop.), S. Tawton	1	1⅜	
4000	Gawton United	1¼	1¾	1⅛
1000	Gellirhelvin (sil.-lead), Cardigan	1	3	
24000	Glenaulin & Carivilleen (copper)	⅛	¾	
256	Glynn Wh. Mary, Cardingham	1⅛	1½	
10000	Golden Mile (lead), Glamorgan	⅜	1	
12000	Gorn (lead), Llanidloes	12s.	¾	
30000	Great Crinnis (copper)	1	1¼	
512	Great Rough Tor (cop.), Cornw.	37	12	
1024	Great Sheba Consols (tin, cop.)	11½	14	8 10
10000	Gt. Tregune Consols, Altarnun	1	3	
6400	Great West Roskear, Gwithian	1	2	
5000	Great Wheal Agar (tin, copper)	1	1	
1024	Great Wheal Fortune (tin)	1¼	1¼	
6000	Great Wheal Tonkin (copper)	1	1¾	1⅝ ⅛
200000	Gt. Wh. Vor (tin, cop.), Helston	1	1⅜	
1000	Gurlyn (tin), St. Erth	1	1⅜	
10000	Hibernian (copper), Ireland	12¼	¼ ½	
10000	Hill Bridge Consols, Peter Tavy	1	3½	3⅜
4096	Inney Consols, South Petherwin	1	3	
1024	Kenneggy (copper), Breague	8s. 2d.	5	
4096	Lamerton United (cop.), Devon	⅛	¾	
1024	Lantallack (sil.-lead), Landrake	⅛	1	
4000	Loveden United (lead), Cardigan	½	1	
5000	Manor Mine (cop.), South Zeal	1	1	
6400	Michell (lead), Flint	1s	1	
20000	Mizen Head (copper), Cork	⅛	⅜	⅛ ⅜
160	Morvah Consols (tin, copper)	4	1¾	
6400	Mostyn (lead), Flint	2s	1	
15000	Nantlle Vale (slate), Llanllyfni	1	1¼	
5000	New Cop. Bottom, Bridestowe	1¼	1	
2048	New East Crowndale (cop., tin)	2¾	1¾	1¾
10000	New Polgooth and Woodclase	1⅜	1⅜	
4000	Norbury (copper), Salop	1s. 6d.	½	
5000	North Britain Burra Burra (cop.)	2½	3	
8000	North Cornwall	2	3	3
256	North Crenver (copper)	12½	12½	
256	North Fowey (cop.), Tywardreath	4¾	6	
10000	North Towy & Cystanog (lead)	⅛	1	¾ 1
—	North Trelawny (copper)	—	3⅜	3⅜
1060	North Wheal Trelawny (lead)	1½	5⅛	
406	Penhauger (lead), Menheniot	2	2¼	
50000	Perran Con. (cop.), Perr. Uthnoe	2	—	
4000	Perran Wheal Jane (tin, copper)	¼	¼	
5000	Penllyne Court (lead), Glamorg.	½	1¾	1¾
640	Pen-y-Gelli (lead), Flintshire	3	25	30
4096	Phœnix Consols (cop.), St. Cleer	6d	1⅝	
1536	Phœnix Gt. Con., Linkinhorne	1	2	1¾
50000	Poltimore (cop., gold), Devon	1	1⅝	1⅛ 1¾
2220	Polzeath Con. (lead), St. Minver	1	1	
2048	Ponterwyd (sil.-lead), Cardigan	¾	2½	
12000	Prignant Con. (sil.-lead), Card.	1	1⅛	
8000	Red Dragon (silver-lead), Wales	1	1⅜	
2500	Ringabella (sil.-lead), nr. Cork	4	3	
4000	Ritton Castle (lead), Salop	7s.	¼	¾
100000	Royal Hibernian (lead), Kerry	1	1¼	1
3500	Silver Brook (sil.-lead), Devon	1	3	
4004	Sourton Con. (copper), Sourton	¾	1	
5000	South Alfred Consols	1	1⅛	1¼
20000	South Cork (cop.), Ballydehob	1	1⅛	
1200	South-East White Grit (lead)	1s.	—	
6144	South Phœnix	⅛	3	
953	South Plain Wood, Ashburton	£6 7s	1⅛	
3072	South-West Phœnix (copper)	1	2⅛	1¾ 2
2000	South Wales Mining Co. (lead)	1¾	2	
1024	South Wheal Alfred (cop), Gwin.	⅛	1	
4000	South Wheal Russell	½	1	2 2¼
6144	St. Austell Consols (cop. & tin)	1	2l. 2s.	2l. 2s.
1200	Swanpool, Budock	4⅛	22	
5000	Temple Con. (tin, cop.), Cornw.	2	2	
600	Tregardock (lead), St. Teath	4¾	13	
833	Tremar (copper), Liskeard	4¾	⅜	
4000	Tremollett Down, Stoke Clims.	¼	⅛	
6000	Trenault (lime quarries)	1	1¼	
4000	Tresellyn Consols, Altarnun	½	¾	
1024	Trethevy (copper), St. Cleer	7½	4¾	4
4096	Trevallick (silv.-lead), Liskeard	6d	⅛	
2500	Trevenen (tin), Wendron	1	1⅛	
5120	Treworlis and Trenethick (tin)	½	1⅛	
10000	Tyn-yr-beth (slate)	¾	1¾	
512	Tywardreath (cop.), St. Blazey	16	35	
5000	Tyllwyd (lead) Llanbadarn Fawr	1	1¼	
3000	United Gefail-y-Miners (copper)	½	⅛	
1000	West Allt-y-Crib (sil.-lead)	6s.	—	
1024	West Phœnix, Linkinghorne	9½	21	18 19
256	West Sharp Tor, Linkinghorne	38	120	
—	West Sheba	—	2¼	
1056	West Stray Park, Camborne	2	4	
6240	West United Hills (cop.), Illogan	18s	1	
64	West Wheal Darlington (cop.)	£71 15 2	80	
1024	West Wh. Fanny (tin) Zennor.	2	3¾	
2000	West Wheal Friendship (cop.)	2	2	
2048	West Wheal Robins	¼	½	
2048	West Wheal Rose (lead)	2	2	
3072	Weston (lead), Shropshire	¾	3	2¼ ⅜
4096	Wheal Albert, Calstock	⅛	⅛	
8000	Wheal Atley (cop. &c.), Lanivet	1	1	
5000	Wheal Bazely (sil.-lead), Calstock	1	1⅜	
5000	Wheal Bawden (sil.-ld.) St. Teath	7s	⅛	
1742	Wheal Benny (cop.), Calstock	⅝	½	
1024	Wheal Catherine, Liskeard	4	1	2½ 3
6400	Wheal Cocke (cop.), St. Enoder.	½	1	
3000	Wheal Dora (tin, cop.), St. Cleer	3¾	1	
4096	Wheal Edward (cop.), Calstock	¾	2	3¼ ⅜
64	Wheal Ellen	1	3	
1024	Wheal Ellen	4s.	½	
5000	Wheal Fanny (lead)	1¼	1	
2048	Wh. Fenwick (copper), Mullion	½	1	
916	Wheal Fortescue (cop.), Tavist.	5½	¾	
2048	Wheal Fortune (lead), Landulph	⅛	1	
5000	Wheal Fortune, South Tawton	1	3	2⅛
1536	Wheal Gill (cop., lead), Liskeard	8	7	6⅞ 7
2048	Wheal Hamlyn, nr. Oakhampton	1¾	¼	
1024	Wheal Hill (tin, cop.), Cornwall	¼	1	
6000	Wheal James (iron, cop.), Roche	1	1	1
1200	Wheal Ludcott	—	1¾	
1024	Wheal Neptune, Perranuthnoe	£5 11	4½	
6000	Wheal Norris	1	2	2
8960	Wheal Peru (sil.-lead), Cornwall	4s	1	
6400	Wheal Prockter (lead), St. Kew	1	1⅛	1
4096	Wheal Sarah (copper), Sourton	⅛	⅛	
10000	Wheal Samson, St. Teath	1	3⅛	
4000	Wheal Surprise	¾	⅜	14s. 16s.
1024	Wheal Trelusback, Stythians	6⅝	7½	
4000	Wheal Victoria (copper)	22s. 6d	1	
4696	Wheal Wrey, St. Ive, Liskeard.	6s	1⅛	
100	Wyndham Consols, Cumberland	10	12⅛	

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.
75000	Adelaide Land and Gold Comp.	2	2⅛	1¾ 2
19000	Australian (cop.), S. Australia	5	5	
6000	Barossa Range	1⅜	⅛	
75000	Brucutu (gold), Brazil	⅛	⅛	
12000	Jamaica (copper)	1	1⅛	1¼ ⅜
3250	Kinzigthal Min. Ass., Germany	2½	2	
24000	Liguanea & Gen. Min. Co. of Ja.	1	2¼	
25000	Monarch Gold	½	¾	⅛ ⅜
5000	National Brazilian (gold), Brazil	30	2¼	
104000	North British Australasian	1	2⅜	
10000	Pontgibaud (sil.-lead), France	—	—	
25000	Port Royal and St. Andrews	¼	—	1⅛ ⅜
5000	Royal West Indian (copper)	10	10	
80000	Upper Canada (copper)	¼	⅛	
10000	Worthing (cop.), Adelaide	5	3	2¾ 3
100000	Ditto New	½	⅜	¾

IRON COMPANIES.

Shares.	Companies.	Paid.	Last Price.	Present.
8000	Blaenavon (iron) South Wales	50	15	15
26000	British Iron Company	13¼	10	
50000	Portland (iron) Scotland	2	2⅜	2¾ ⅞
10060	Rhymney Iron	50	27	
9000	Do. New	15	7 8	

. Our object is to make the Share List correct: it must be obvious we cannot do so without the constant assistance of those concerned. We, therefore, earnestly call upon all who have the power, to aid us, by forwarding any alterations or corrections which may, from time to time, come under their notice. Reports from mines, notices of meetings—in fact, mining information of every description, forwarded to our office, will meet ready attention.

GOLD AND SILVER.

Foreign gold, in coin per ounce	£3 17 0
Foreign in bars, per ounce	3 17 9
Spanish doubloons, per ounce	3 16 6
Mexican dollars, per ounce	0 4 11¾
Silver in bars (standard)	0 5 1⅝

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